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ABSTRACT

This report presents proposed standards for teaching internship programs. The internship standards are intended to be embedded in a state's teacher licensing system. The year-long (paid) internship is simultaneously the last year of formal teacher preparation, the first year of (supervised) teaching, and one requirement for the unrestricted teaching license. An intern would have to satisfactorily complete the internship before taking the final examination to receive a teaching license. The report is intended to provide guidance to teaching standards boards as well as colleges of education, school districts, and others concerned with improving the practical preparation of teachers. The discussion is presented in four sections: (1) "The Case for a Supervised Teaching Internship"; (2) "Internships in the Licensed Professions"; (3) "Standards for an Internship Program"; and (4) "Implementing the Internship: The Value of Clinical Schools." The appendices provide examples of evaluation forms; an extract from "Minnesota's Vision for Teacher Education: Stronger Standards, New Partnerships"; the Code of Ethics for Minnesota Teachers; and detailed descriptions of internship programs in four licensed professions--engineering, psychology, architecture, and medicine. A bibliography completes the volume. (JD)

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The Teaching Internship

Practical Preparation for a Licensed Profession

Linda Darling-Hammond, Tamar Gendler,
Arthur E. Wise

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RAND

Center for the Study of
the Teaching Profession

PREFACE

RAND's Center for the Study of the Teaching Profession has been asked by Minnesota's Board of Teaching to help design an assessment system to license teachers. In an earlier effort for the Board of Teaching, RAND had proposed a new concept for the professional licensing of teachers (Arthur E. Wise and Linda Darling-Hammond, *Licensing Teachers: Design for a Teaching Profession*, The RAND Corporation, R-3576-CSTP, November 1987). That concept is built on the normal sequence of licensing common to most other professions. It proposes a staged process for promoting and assessing teacher competence—academic training in the liberal arts and in specialized teaching knowledge, followed by a carefully constructed, well-supervised internship, which is completed before sitting for the second part of a two-part licensure examination focused on teaching knowledge and skills. Both the Board of Teaching and the Minnesota legislature endorsed the concept, and the legislature directed the board to begin implementation.

This report presents proposed standards for teaching internship programs. The internship standards are intended to be embedded in a state's teacher licensing system. The year-long (paid) internship is simultaneously the last year of formal teacher preparation, the first year of (supervised) teaching, and one requirement for the unrestricted teaching license. As envisioned in Minnesota, an intern will have to satisfactorily complete the internship before taking the final examination to receive a teaching license.

The report is intended to provide guidance to the Board of Teaching and other teaching standards boards as well as colleges of education, school districts, and others concerned with improving the practical preparation of teachers. Though the internship described here is meant to be part of a state's teacher education and licensing system, many of the report's recommendations should be of interest to anyone interested in improving teaching.

SUMMARY

In efforts to improve and "professionalize" teaching throughout the past decade, states have made major changes in their rules governing teacher preparation and licensure. Those changes include new examinations, revisions to teacher education coursework, and renewed interest in supervision and clinical training of new teachers. In this context of change, the teaching profession is starting to confront the question that virtually every other licensed profession has had to answer: How can prospective teachers be transformed from students of teaching into responsible practitioners, given the magnitude and complexity of their task?

THE CASE FOR A SUPERVISED TEACHING INTERNSHIP

The teaching profession is examining how a supervised clinical training experience—an internship—might be used to enrich candidates' abilities and ensure their competence *before* they practice autonomously. In moving toward a paid, supervised internship, teaching is following the lead of other professions, which have found that the internship supplies the opportunity to apply knowledge, make decisions, reflect on performance, and develop competence. Examinations by themselves can test knowledge, but cannot ensure that a candidate for licensure has or can acquire the skills to serve clients competently in a professional environment. An internship can help to provide this assurance.

Rationale for a Teaching Internship

Written instruments for assessing teacher competence and skill cannot capture fully the complexities of teaching knowledge and the context-dependent nature of teaching judgment. And because the acquisition of teaching skill depends so much on developing judgment in complex, nonroutine situations, competence cannot be fairly assessed until after the prospective teacher has had an opportunity to encounter and work through many of the common problems of teaching practice.

It is reasonable to expect that these complex skills be acquired before the license to teach is granted. It is just as reasonable to expect, then, that the licensure process should require both *opportunities for* and *evidence of* learning these skills.

Other professions—like medicine, psychology, architecture, and engineering—have done just this. They require a candidate to undergo a structured internship before being admitted to practice. Internship provides training, it safeguards the public from unskilled, unsupervised novices, and it gives guidance and support to beginning practitioners. Professional internships are typically designed to be oriented more toward assistance than assessment, more toward enhancing effectiveness than screening.

In contrast, beginning teachers are generally left to "sink or swim" in the first years of teaching. But it is known that the quality of this experience has a profound effect on what kind of teacher a novice turns out to be, and indeed whether he or she stays in the profession at all.

The Importance of Teaching Knowledge

In all the efforts to improve the quality of education, there has been very little investment in preparing knowledgeable teachers. Teaching children means being prepared for complexity. Young students can and do present remarkable variation in needs and style. But schools don't traditionally present an open, supportive opportunity for new teachers to develop and hone their professional skills. The typical message to a new teacher is "figure it out yourself, do it all yourself, and keep it to yourself." It is an unfortunate aspect of many teaching environments that they lack the collegiality and consensus about standards of practice that are such a fundamental part of other professions. The reforms in teacher preparation are beginning to address this lack.

The Evolution of Professions

All the other professions have undergone the debate of first, whether, and second, how to train their practitioners. They have asked: Is there something special that practitioners need to know? If so, what is it? And how can it best be learned? In finding the answers, the professions have gradually defined educational requirements. They have also moved from old-fashioned one-on-one apprenticeships to well defined, closely supervised—and mandatory—internships. They have accepted the notion that two forms of training—didactic and clinical—complete different and complementary parts of learning to practice.

Structuring Professional Preparation and Assessment

Many professions have come to structure their preparation and assessment for licensure in similar ways. Generally, formal university-based education (often followed by a test of basic knowledge) is completed prior to a structured internship. Successful completion of the internship is a prerequisite to sitting for a test of clinical skills.

Internship programs are, on the whole, formal and structured. Unstructured "apprenticeships" have largely disappeared. Defining the content of an internship not only ensures that candidates receive exposure to the full range of professional skills required, it also ensures fairness and equity in licensure. For the teaching profession, if tests of performance are to be fair and reliable for all candidates, it is critical to structure the internship program so that each candidate has equal exposure to the concepts that will be tested. Current mentoring programs are too unstructured to provide this assurance.

Standards for Teaching

Before it can structure any internship program, the teaching profession will have to define its standards for what teachers should know and what they should be able to do if they are to become effective practitioners. In other words, what should a teaching licensure process measure? The theoretical knowledge is important, as are techniques. These can be taught in a university setting, and standardized tests can measure them.

But teachers must also be able to apply their knowledge appropriately in different contexts. This skill cannot be taught in university, and a paper-and-pencil test or observation/tally instrument cannot measure it. This is the role of an internship. How, then, should such a program be designed?

The Design of a Teaching Internship

In university, teachers should learn theory and technique. In internship, they should learn to apply that knowledge with guidance, support, and increasing responsibility. The internship must be carefully structured to allow teachers to gain breadth of experience, reflect on their performance, amass a repertoire of teaching strategies, and learn to solve problems. A teaching internship would differ from current programs in a number of ways:

1. The intern would learn by doing *and* by modeling.
2. The intern would assume progressive degrees of responsibility.

3. The intern would receive regular supervision and guidance from senior teachers.
4. The intern would be guaranteed a specified range of experience.

Current beginning teacher programs focus too much on evaluation, on preparing candidates for particular evaluation instruments. They do not give the assistance needed in the critical transition from student to teacher. They do not nurture skills of self-evaluation.

If teaching were to follow the lead of other professions, beginning teachers would not be evaluated for licensure on the basis of on-the-job observations. Instead, internship would be a separate step on the route to the licensing examination. On-the-job evaluation poses problems of fairness and validity. A one-classroom observation gives only the most narrow source of information on the candidate's ability. The presence of factors out of the new teacher's control make it most difficult to fairly assess whether he or she has acquired good teaching skills.

The teaching profession needs to specify a set of educational goals for all new teachers, and then design an internship program that will provide all the experiences they will need if they are to reach those goals.

Benefits of an Internship

The development of a teaching internship will serve some other goals as well. It is very likely to reduce current high attrition rates. It should encourage a reflective, self-improvement attitude among new teachers. It offers a setting in which to encourage the development of ethical standards and observe the candidate's concern and care for children. It will provide occasions and events for meaningful assessment.

The internship is the first step on the path from novice to expert. As such, it will be designed to allow time both to observe and to practice. Interns will be able to watch what experts do, as well as benefit from their observations and advice. In short, the internship approach holds promise for improving the overall quality of teaching practice by acknowledging the complexity of teaching and encouraging the acquisition of a broad set of understandings and abilities.

INTERNSHIPS IN THE LICENSED PROFESSIONS

In the twentieth century, most of the occupations calling themselves "professions" have evolved a tripartite system of induction: education, experience, and examination. In some professions, the experience component is seen as so crucial that a structured program of supervised practice is required for licensure. Four of those professions provide enlightening models for the current study: engineering, psychology, architecture, and medicine.

Four Models: Engineering, Psychology, Architecture, and Medicine

In each of our four models, candidates for licensure complete a formal educational program, undergo a practical exposure to the profession, and then take an examination that tests professional knowledge and skill. Viewed as a set, these four professions illustrate some similarities and differences among professional internships.

Engineering. The candidate for the professional engineer license must first graduate from a four-year engineering program, then take the Fundamentals of Engineering examination, an eight-hour multiple-choice test of basic engineering knowledge. After passing the exam, the candidate is designated an "engineer-in-training." To advance beyond this level, the candidate must practice for four years as an intern. The candidate must take on increasing degrees of responsibility for engineering tasks, but beyond this, no requirements are imposed on the internship by any central regulating board. After the internship, the candidate takes the Principles and Practice of Engineering examination, an eight-hour essay test. A passing score on this examination, plus evidence of completion of the other prerequisites, qualifies the candidate for registration as a professional engineer.

Psychology. Licensure as a professional psychologist in most states is a three-part process. The candidate must first complete the academic requirements of a doctoral program in psychology, which generally includes a 400-hour practicum experience. The candidate must then practice for one or two years under supervision in an internship program accredited by the American Psychological Association. Psychological internships are fairly structured and include didactic training alongside clinical experience. The final licensing step is to pass the Examination for Professional Practice in Psychology, a 200-item multiple-choice test, as well as any state-required oral or essay examinations. The candidate who passes all examinations, submits evidence of completion of all other prerequisites, and provides confirmation of good moral character is eligible for licensure as a professional clinical psychologist.

Architecture. Architects seeking a license complete three steps. The first is three and a half years of academic training in architecture.

Candidates then undergo a structured three-year internship at an architectural firm, during which they must accrue a specified number of hours of practice and observation in 14 task areas. Next comes the Architect Registration Examination, a four-day, eight-part test. The candidate must pass all sections of the test and submit appropriate verification of education, internship, and moral character to be licensed.

Medicine. Licensure as a board certified physician is at least a five-part process. The candidate must first complete a four-year MD program at an accredited medical school, which includes coursework and significant field experience. The candidate then takes one of two examinations: the Federation of State Medical Boards' FLEX I examination, or Part II of the National Board of Medical Examiners' (NBME) three-part series. After passing the FLEX I or NBME Part II, the candidate undergoes a one-year internship, after which he or she takes either FLEX II or NBME Part III. Candidates seeking board certification then begin a two- to five-year residency; each medical specialty has its own prescribed residency program. Each specialty's regulatory board sets its own standards for a postresidency examination, but most include an oral and a written component.

Common Features among Internships

All four professional models have features in common. In all cases, the intern must have completed a degree in the professional field before entering the internship, and must complete the internship before sitting for a professional examination. There are other, deeper affinities:

- The intern has a special title (e.g., intern-architect, resident, etc.) that denotes a special role vis-à-vis responsibilities to clients.
- The internship takes place full time in a clinical setting.
- The intern assumes a progressive degree of responsibility.
- The intern receives regular guidance and supervision from practicing professionals as well as professional educators.
- The intern has an opportunity to observe professionals interacting with clients.
- Didactic training accompanies clinical experience.
- The intern is exposed to broad aspects of the field, not simply areas of personal interest.
- The intern receives periodic formal evaluation.

- Training goals for the intern outrank service goals.
- The intern is paid, at less than a full professional salary.

These key features emphasize an important property of a professional internship: its transitional status. Interns are neither students nor professionals. The internship is neither the last year of formal education nor the first year of fully independent work. Rather, it is a time for learning to practice.

One final feature is present in psychology and medical internships but absent from the other professions:

- A "critical mass" of interns is placed at any given internship site to allow for peer support, structure, and an efficient use of resources. This aspect supports an institutional ethos in which the internship site sees itself as not only a provider of services to clients, but also as a training site for future professionals.

Alternative Ways of Defining Content

Each of the four professional models has its own way of defining the content of the internship. There are four primary attributes: time spent, tasks completed, skills mastered, and breadth of exposure. Although all the professions incorporate aspects of all the attributes, each falls fairly neatly into one of the four.

Time spent. The engineer-in-training must spend time practicing under the supervision of a professional engineer. Successful completion of the internship is defined simply as having spent four years as an "intern."

Tasks completed. In architecture, the intern-architect must prove that he or she has spent a certain number of days performing or observing architectural practice in three major categories and fourteen smaller areas. Successful completion is defined as having spent appropriate amounts of time on the specified tasks.

Skills mastered. Psychology interns are generally rated on their mastery of various skills in case management, research, and assessment. Successful completion is defined as having spent both one full year working under close supervision, and as having mastered certain essential skills.

Breadth of exposure. The medical intern is required to participate in a range of rotation assignments, covering many medical specialties. Successful completion is defined both as having spent one full year working under close supervision, and as having been exposed to a number of central domains of the profession.

Evaluation of Interns

Upon completion of the internship, each of the four professions requires some kind of summative evaluation of the intern's work. The evaluation models vary by profession, but one crucial feature is constant: each profession relies on subjective judgment by other professionals to establish the candidate's capacity for independent practice. Not one of the professions provides evaluators with a checklist of skills and behaviors to observe and tally.

The subjective evaluation falls within a larger context of assessment instruments and requirements to fulfill. But the internship offers the only opportunity to observe the candidate in a sustained, actual setting. While the evaluation of the internship is neither standardized nor objective, it is perhaps the most relevant to actual future practice.

STANDARDS FOR AN INTERNSHIP PROGRAM

The state of Minnesota plans to introduce an internship program that will be a mandatory part of its teacher licensing process. With the assistance of The RAND Corporation, the Minnesota Board of Teaching has produced a document establishing standards for the teaching internship. The heart of the document is a series of standards addressing five aspects of the internship program: (1) educational program, (2) interns, (3) administrative structure, (4) faculty and staffing, and (5) facilities and resources.

Educational Program

The internship will last full time for one academic year. Unlike traditional student teaching, which is neither full time nor full year, the internship is to be an intensive, sustained exposure to the practice of teaching. The internship experience must provide candidates with certain fundamental features: among them, abundant opportunity to use and analyze research, observe other teachers, and reflect upon and analyze their own teaching experiences. The tone of the internship should be one of support, broad exposure, and immersion in the subtleties of the profession. Internship programs are allowed a wide variety of methods to accomplish their educational goals.

Some of the more significant educational standards are listed below.

- Interns must experience an *adequate variety of teaching situations,* including variety in student age or grade levels, student learning characteristics, subject areas, student demographic or cultural characteristics, and types of communities.

- An internship program must establish a *formal and appropriate curriculum*, based on the developmental needs of beginning teachers, and offering both formal and informal instruction throughout the year.
- Interns must receive *assistance necessary to perform as beginning teachers*, including systematic and regular support, an appropriate and progressive degree of responsibility, and an optimal teaching load.

Interns

The standards for interns address such issues as enrollment numbers, evaluation, and entry and exit requirements.

- The standards encourage programs to plan to serve a sufficient *number of interns* to allow for peer interaction and support as well as efficient instruction.
- Programs must have *procedures for assessing the interns' acquisition of the skills and dispositions* required for a beginning teacher. Programs must also assess each intern in at least two different settings, such as third grade and fifth grade, urban and rural, or low and high socioeconomic status.
- The standards establish *when in the prospective teacher's career the internship is to take place*: after having completed all relevant didactic and practicum experiences necessary for graduation from an approved teacher education program, and prior to sitting for the Minnesota test of beginning teaching skills.

Administrative Structure

The standards for administrative structure establish norms for the governance of internship programs.

- An internship program should have a *director* who is appropriately qualified and who will devote a sufficient amount of time to the program.
- Each program should be a *collaborative effort* involving one or more school districts and one or more teacher preparation institutions. Each program must have an *advisory board* to guide policy decisions and encourage close working relations among all collaborating parties.
- The standards compel programs to establish procedures that will *institutionalize the internship*. Programs must be specific about the process by which resources, including staff, are

allocated, and they must provide sufficient administrative support and staff compensation. Programs must have clear procedures for appointment of staff, selection of interns, and ongoing evaluation of the program. Finally, the standards require programs to encourage camaraderie among interns and facilitate information exchange among interns and faculty.

Faculty and Staffing

The standards for faculty and staffing attempt to ensure that internship programs will be staffed only by outstanding professionals who receive the support and training needed to do an exemplary job.

- The program's director and advisory board must set *procedures for selecting faculty and staff.* Personnel are to be drawn from both school sites and the teacher training institutions.
- Program staff must *meet a variety of criteria,* e.g., a strong teaching record, adequate special training, and a demonstrated interest in the profession. There must be a *staff of sufficient number and variety* to meet the program's educational requirements. Programs must provide staff with opportunities for *continuous professional development.*
- Program faculty members are reminded that they are responsible for *ongoing assessment of the intern's progress.*

Facilities and Resources

The standards set forth guidelines for appropriate internship settings.

- To ensure that the internship experience takes place in actual clinical settings, programs will reside in *public schools* within the state. This requirement does not exclude private schools from participating in consortia with public schools.
- Programs should offer *sufficient diversity* to ensure a variety of educational experiences, reflecting the state's diverse population.
- Internship programs must have *adequate facilities, equipment, and materials* to meet the standards for educational experiences. This standard is meant to encourage internship sites, and their funding bodies, to create situations in which facility and resource limitations do not interfere with the intern's ability to benefit from the internship experience.

Minnesota's Standards for Internship Programs

This report reprints in full the recommendations of the Minnesota Board of Teaching's Internship Task Force regarding standards for the state's internship program. Any program must meet these standards to be accredited by the Board of Teaching. After completing the internship, teacher candidates will sit for the Minnesota test of teaching skills, the proposed final step in the licensing process.

IMPLEMENTING THE INTERNSHIP

When contemplating the implementation of a teaching internship, several issues arise. They include how to finance the program, what status and compensation for interns is appropriate, how to plan for a successful startup, and when to begin implementation.

Financing

One of the reasons that sound, supervised induction to teaching does not now occur is that no agency is financed to carry it out. By far the bulk of teacher education funds are spent on didactic activity. The practical preparation of teacher candidates is carried out in the low-budget enterprise known as student teaching.

If teacher-preparation institutions spend little money on teacher induction, the same is true of school districts. The school principal, who in theory is responsible to supervise the progress of beginning teachers, in practice seldom has the resources to provide any kind of meaningful supervision and evaluation. In many states, the idea of mentors for teachers is gaining currency, but not financing. Although mentors may receive a modest salary supplement, they typically do not receive any reduction in their classroom time. Reallocating teaching responsibilities so that mentors can spend sufficient time with new teachers carries a far more significant cost. As a result, "mentoring" as it now stands has only a little to contribute to the concept of internship advanced in this report.

Since school districts have not in the past had to pay for the induction of new teachers, tradition and conventional wisdom weigh heavily against the likelihood that they will be willing or able to commit sufficient financing to internship programs. Nor is it prudent to expect teacher candidates to pay for their own internships as they do now, in effect, by paying tuition for the opportunity to become uncompensated student teachers. Requiring a year-long, unpaid internship would close the profession to many candidates.

Realistically, most of the responsibility for financing teaching internships must fall on the state. Federal funding is a possibility, as is private sector funding, but institutionalized state funding is the key to developing and sustaining a teaching internship.

Status and Compensation of Interns

As construed in this report, interns are college graduates who are not yet licensed for independent practice. They are teaching, but still learning to teach. They are not student teachers, but not authorized to teach without supervision. The internship is the culmination of teacher education and the prerequisite for the final test (in Minnesota, SKOPE-S) to become a teacher. In short, "intern" is a new status.

School districts running internship programs will have to change in that they must provide close supervision. Senior personnel must be allocated to guide interns, consult with them, observe them, evaluate them, and share the responsibility for teaching their students. The cost of such supervision is high, and school districts will have to find ways to manage those costs.

The issue of intern salaries raises certain considerations. Since the intern must be supervised, the cost of educating that intern's classroom of students rises by the cost of the supervision. Someone will have to bear that cost. Also, if an intern does not carry a full teaching load, there may be an argument against full compensation. On the other hand, compensation is affected by the forces of supply and demand. In a time of teacher shortage, any move that increases the cost of entry to the profession could be imprudent in the long term.

Another issue in intern status is union membership. Full membership might raise problems in the areas of evaluation and screening that are necessary components of internship programs. Some sort of special, less-than-full union membership status for interns is called for.

Planning

Key to the success of the internship program will be the selection of outstanding teachers who also have the capacity to supervise and guide interns. Teachers who are interested in joining an internship program's staff will apply; no one should be required to take on the job. The position implies new responsibilities in addition to teaching children. It need not, however, imply a new and permanent *role*. A school district need not create a "career ladder" to staff an internship program. Some teachers may wish to serve on an internship staff for a short time, some for a long time, and others not at all.

Until internship programs become firmly established, schools of education, school districts, unions, and researchers should be developing plans, courses, and options to facilitate the crucial first generation of programs. That work has begun, but more is necessary. Many questions need to be answered, on effective supervision, evaluation, pedagogical instruction, settings for observation, and providing a broad variety of settings for practice. The most likely setting for cost-effective operation of an internship program will be the professional development school, or clinical school. Innovative team-teaching techniques and other restructuring can allow a clinical school to provide instruction at a cost no higher than a traditional school. Locating clinical schools in school buildings with histories of high faculty turnover will bring the benefits of committed, state-of-the-art teaching to typically underserved populations.

When Should the Internship Be Implemented?

As envisioned in this report, the teaching internship program is embedded in a licensing process. At present the tests that will precede and follow the internship are still in development. But the program need not wait until the tests are ready; by itself, it will improve teacher education. If implementation begins now, programs will have had the time they need to organize and start running smoothly by the time the tests are ready to complete the full licensing process.

The internship described in this report is new. It does not and cannot substitute for the current university training of teachers. And because it is new, it requires new responsibilities and roles for universities, schools, and government. It cannot simply be "mandated" without a corresponding commitment of new funds.

Policymakers and the public demand accountability in education. But before teachers can be held accountable, they must be thoroughly prepared for their work. And before the public can know that teachers have been prepared for their work, teacher licensing must be overhauled. The internship will provide practical preparation for the prospective teacher and evidence to the public that the candidate merits the license to practice the profession of teaching.

ACKNOWLEDGMENTS

Our respect for the pioneering stance of the Minnesota Board of Teaching, particularly to its chair, Dale Rapp, and its executive diretor, Kenneth L. Peatross, continues to grow. Where others seek expedience, the Board of Teaching has set a deliberate course to do it right. We trust that their foresight will be recognized and acted upon by the Minnesota legislature. Although the legislature has endorsed, in principle, the plan described in this report, an appropriation of operational funds will be necessary to implement the plan.

A draft of this report was reviewed by our collegues Richard Shavelson of the University of California, Santa Barbara, and Gary Griffin of the University of Arizona. The report is better now. Shirley Lithgow helped us get the job done again. . . and again. Nikki Shacklett made it easier on the reader.

The project was financed by the Minnesota Board of Teaching. A grant from the Southwestern Bell Foundation enabled us to refine and publish this report. Another grant from the Conrad N. Hilton Foundation also helped.

The authors accept full responsibility for continuing to believe that a serious investment in the teaching internship will improve the quality of teaching in the nation's schools.

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I. THE CASE FOR A SUPERVISED TEACHING INTERNSHIP

As efforts to improve and "professionalize" teaching have proceeded throughout the 1980s, states have made major changes in the rules governing teacher preparation and licensure (Darling-Hammond and Berry, 1988). These changes include the introduction of test requirements in at least 46 states, revisions in coursework requirements in most states, and renewed interest in strengthening supervision and clinical training for prospective or beginning teachers. As a whole, these moves are intended to assure the public that teachers are capable before they receive a "regular" license to practice.

But even as course requirements and testing programs are created, there is a sense that something more is needed to improve the quality of teacher preparation and ensure that beginning teachers are adequately prepared to assume the complex task of teaching. As other professions have before, the profession of teaching is struggling with difficult questions: How can candidates be taught to use formal, abstract knowledge to inform idiosyncratic teaching decisions? How can codified knowledge and theory be applied to problems of practice? How can skills be developed in practical application? The true goal is to answer how prospective teachers can be transformed from students of teaching into responsible practitioners, given the magnitude and complexity of the task they face.

As other professions have done, teaching is examining how a supervised clinical training experience might be constructed to enrich candidates' abilities and ensure their competence *before* they are asked to practice autonomously. This is a matter of both improving training and increasing accountability to clients. As part of the bargain that professions make with society, in exchange for the right to offer particular services, they promise to ensure the competence of their practitioners.

In most instances, professions adopt requirements for a clinical internship or apprenticeship experience as part of this guarantee. This is so for two reasons. The first is that the graduate needs an internship to learn how to apply knowledge and make decisions appropriately. The second is that examinations—including performance tests—cannot assess completely the ability to use knowledge and apply skills. By insisting that the candidate successfully complete an internship, the profession has another measure of performance. That measure is valid on its face because it involves the actual delivery of service to clients. But because the rating of the intern's performance in the internship is necessarily subjective and unstandardized, it cannot be used directly for the licensing decision. The dual requirement—completing the internship satisfactorily *and* passing an examination—balances the demands for reliability, validity, and job relevance, and provides the assurance that neither measure could alone.

This report describes the results of an effort by a state professional standards board, the Minnesota Board of Teaching, to create standards for a teaching internship as part of the licensing process. This first section presents the general case for a supervised teaching internship. Section II presents, compares, and contrasts the internship models now in use in engineering, psychology, architecture, and medicine. Section III sets forth proposed internship standards developed by a committee appointed by the Board of Teaching. Section IV outlines implementation issues and assesses the idea of the professional development school or clinical school as the site for teaching internships. Appendix A provides examples of intern evaluation forms from several fields. Appendix B, an extract from Minnesota's *Vision for Teacher Education*, describes the dispositions, skills, and knowledge expected of teacher education graduates. Appendix C reproduces the Code of Ethics for Minnesota teachers. Appendix D provides detailed descriptions of internships in four licensed professions.

RATIONALE FOR A TEACHING INTERNSHIP

As is true in other professions, written instruments for assessing teaching knowledge and skill are unable to capture fully the complexities of teaching knowledge and the context-dependent nature of teaching judgment. And because the acquisition of teaching skill depends so much on developing judgment in complex, nonroutine situations, competence cannot be adequately assessed until after the prospective teacher has had an opportunity to encounter and work through many of the common problems of teaching practice.

Before new teachers are granted a continuing[1] license, an evaluation process should identify whether or not they possess a range of needed teaching skills. The kinds of skills the state would like to be sure that licensed teachers possess cannot be acquired through formal teacher education alone. Neither can they be learned reliably and effectively by trial and error during the first years of practice. If a major goal of licensure is to increase the probability that those admitted to practice can indeed make appropriate decisions and execute sound teaching strategies, the licensure process should supply both *opportunities for* and *evidence of* learning these skills.

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[1] Minnesota's term for a "regular" license, the unrestricted license that recognizes that a teacher is ready for autonomous practice.

Other professions, such as medicine and psychology, architecture and engineering, have accommodated similar concerns for the development of skill in practice by requiring a form of structured internship before licensure. Internship serves simultaneously as a training vehicle, a safeguard for the public, and a source of support and assistance to beginning practitioners. The internship experience extends professional training in a clinical setting without exposing clients to unsupervised novices or leaving to chance the acquisition of essential skills. The program design arises from a set of educational goals specified by the profession. Not incidentally, these types of programs are oriented more to assistance than assessment, more toward enhancing effectiveness than screening. The latter function is left largely to the licensure examination, thus disentangling, to some degree, the formative and summative aspects of the evaluation process.

In contrast, beginning teachers—with no further assistance from their college professors and few school district resources allocated for formal support—are generally left to "sink or swim" during their first years of teaching (Wise, Darling-Hammond, and Berry, 1987). Research on the experiences of beginning teachers confirms that for many, the absence of expert guidance, support, and opportunities to reflect on their efforts greatly impairs the likelihood of long-term success (Ryan, 1979; Tisher, 1978; McDonald, 1980). These initial teaching experiences have far-reaching effects, for

> the conditions under which a person carries out the first year of teaching have a strong influence on the level of effectiveness which that teacher is able to achieve and sustain over the years, on the attitudes which govern teacher behavior over even a forty-year career, and indeed, on the decision whether or not to continue in the teaching profession (National Institute of Education, 1979).

THE IMPORTANCE OF TEACHING KNOWLEDGE

In this country, preparing knowledgeable teachers has not been the typical mode of investment chosen for education reform. Many approaches to changing the quality of education have assumed that the teacher is a conduit for policies, for curriculum packages, for rules and regulations, and mandates of various kinds. But they have not assumed that what the teacher knows about teaching and learning is a very important part of what happens in the classroom. Consequently, our educational system has underinvested in teacher education; it has invested not at all in teacher induction in the initial years on the job; and it has invested very little in ongoing professional development. An insufficient commitment to teacher learning is a major factor preventing teaching from becoming a profession, since it is the possession of specialized knowledge and the ability to apply it that defines "a professional" as such.

Teacher knowledge is crucial because the nature of learning and effective teaching demands that teachers make informed decisions. If students all learned in exactly the same way, at exactly the same rate, in predictable fashion, if they came to school as standardized as pieces of metal on an assembly line, there would be no need to worry about teacher learning or the professionalization of teaching. If students were uniform in their needs, learning styles, preconceptions, dispositions, and stages of development, teachers could use a simple cookbook approach and the outcomes would be certain.

However, the last twenty years of research on teaching have demonstrated that students learn at different rates and with different styles that pose complex and varying teaching requirements. This reality has important implications for teacher preparation and assessment (Darling-Hammond, Wise, and Pease, 1983). Nonetheless, most schools—and much of their policymaking framework—proceed from assumptions that students are all alike. This set of assumptions has created a structure for the teaching occupation that ignores the critical need for teachers to acquire and share knowledge about teaching problems.

Three aspects of socialization to teaching define the schools' traditional approach to teacher learning. If we could encapsulate them as dicta for beginning teachers, they would be: one, "figure it out yourself," two, "do it all yourself," and three, "keep it to yourself."

Even the best pedagogical preparation in a school of education can go only partway toward the acquisition of clinical skill. When it comes to that very important but hard-to-acquire skill of applying knowledge to the many practical problems that teaching presents, schools have traditionally offered beginning teachers little if any guidance. Furthermore, beginning teachers are usually placed in the least advantageous situations, with the students whom no one else wants to teach, in the schools where the turnover has been highest (because many teachers with seniority have transferred out), and where, consequently, potential mentors are fewest (Wise, Darling-Hammond, and Berry, 1987). Someone hands the beginner a key to a practically empty bookroom at the beginning of school and says "Figure it out yourself. We'll see you in June . . . if you make it that long!"

The "closed door" ethic in schools is the result of a culture that communicates the message "do it all yourself." Teaching has not yet developed the mores of consultation and colleagueship present in highly developed professions that consider it normal and desirable to consult with colleagues about problems of practice. In medicine it is deemed both appropriate and valuable for one physician to consult with another about a patient. In teaching, it is generally viewed as an admission of failure to ask someone else for advice.

That goes along with the third dictum: "Keep it to yourself." Because of the closed-door ethic, in many schools it is a dangerous activity to proffer unsolicited advice to a colleague. Many educators seem to believe that all knowledge should be kept in one's own head. And unfortunately, some of the incentive systems currently being urged upon schools in an effort to apply "business principles" to education only encourage competition among teachers and reinforce some of the existing dysfunctional features of teaching. Colleagueship and consensus about standards of practice are fundamental to professions. They are among the objectives that reforms in teacher preparation, including the idea of a supervised internship or residency, are beginning to address.

THE EVOLUTION OF PROFESSIONS

Over the better part of the last century, debates have been conducted in all of the professions about, first, whether training is necessary for practice, and, if so, what the appropriate forms of preparation and training ought to be. These debates took place in medicine at the end of the nineteenth century, where there was a lengthy and loud debate about whether one needed any training at all to be a doctor. Some said—just as some now say about teaching—that people were born to heal, not taught to be healers. The same debates occurred in the legal profession in the 1920s, and in architecture and engineering more recently. Every occupation that is now regarded as a knowledge-based profession has had to go through the process that teaching is going through now. In each case, the occupation had to address three questions: Is there something special that practitioners need to know? If so, what is it? How can it best be learned?

In virtually all of these other professions, once the initial debates were resolved as to whether training should be required, the occupations began to move from the norm of the self-taught practitioner to an apprenticeship approach. So, doctors followed other doctors around in the buggy; lawyers engaged in clerkships; architects pursued apprenticeships, and so on. As they developed more complexity and discovered the limits of one-on-one modeling for efficiently conveying large bodies of knowledge, the occupations began to require more formal preparation. Sometimes institutional education could substitute for the apprenticeship (or vice versa) in a hiring or licensing decision. In some of these occupations, the apprenticeship so receded that it nearly disappeared when formal education took over as a way of preparing practitioners. But gradually in all of them, the need was recognized for both "book learning" and practical training, acknowledging the contribution of each to the development of professional expertise.

These professions have realized that the two forms of training—didactic and clinical—complete different and complementary parts of the equation of learning to practice. Also, they have cemented the role of the internship—along with coursework and examinations—as a way of evaluating competence.[2]

STRUCTURING PROFESSIONAL PREPARATION AND ASSESSMENT

A number of professions have come to structure their preparation and assessment for licensure in similar ways. Generally, the first step is formal university-based education, often followed by a test of basic knowledge. The next step is a structured internship. Successful completion of the internship is a prerequisite to sitting for a test of clinical skills.

The evolution of teacher assessment is similar to trends in other professions—in some cases, quite recent ones. For example, architecture did not adopt its structured internship program until the late 1970s. That program replaced an earlier unstructured apprenticeship requirement (rather like the mentoring programs recently begun in teaching), which was rejected because professional architects felt that the lack of structure often left gaps in the training of future members of their profession. Establishing standards for an apprenticeship helped both to define professional practice and ensure that candidates would receive exposure to a full range of skill applications and the subtleties of applying architectual knowledge to practice.

Defining the content of an internship is also important for ensuring fairness and equity in licensure. If tests of teaching performance are to be fair and reliable for all candidates, it is critical that the internship program be structured so that each participant has an equal chance of being exposed to the concepts that will be tested. Most current induction programs for teachers do not attempt to define what goes on between a mentor and his or her mentee or ensure that the novice is exposed to a range of teaching experiences. Consequently, the mentored induction experience, while it can be valuable for some and better than nothing for most, is inherently idiosyncratic. It does not systematically present the kinds of knowledge and skills that all professional teachers should be helped to accumulate in the process of learning to practice.

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[2] An exception to this practice as part of the licensure process is law, but since most new lawyers work for other lawyers in large firms (as associates) or in public agencies (as clerks, etc.), they too receive supervision before they begin autonomous practice.

STANDARDS FOR TEACHING

The importance of establishing standards for entry to teaching has been discussed in the policy arena as well as the professional community. The idea that there must be some sort of standards has been accepted almost universally, but debate continues as to what they should look like and how rigorously they should be enforced. Standards are more than simply screens that determine who will and who will not be permitted to teach: they define the very criteria by which good teaching might be judged, and establish a concept of the effective teacher. In fact, the most important function of professional examinations is that by their content they articulate the knowledge and skills required of practicing professionals. Taken together, licensing requirements are the profession's explicit statement about what is worth knowing and how it should be learned and demonstrated. So the contents of licensing activities are extremely important for the preparation of professionals.

The statements that are encapsulated in the requirements for internships and examinations exert a powerful influence on training and practice, one that goes far beyond cut-off scores or passing rates in a given year. Of course, those are important concerns, but it is only recently that educators have begun to attend seriously to the *content* of the examinations, which is by far the more important part of this activity for the profession itself and, ultimately, for the education of children. If teacher learning has something to do with student learning, then it is very important that what teachers learn be useful for the encouragement of student learning.

Standards, then, focus in two directions. They reflect backward to teacher preparation and they reflect forward to teaching practice. But they are not generally operational statements. They have to be translated into preparation programs on the one hand and into testing requirements on the other. The translation is critical. In the recent history of education policy, it has been at this stage that problems begin. Excellent statements of standards can become utterly trivial when goals turn into narrowly framed learning objectives in curriculum guides, or when standards for good teaching are reduced to observable behaviors to be checked off on evaluation instruments. While there is nationwide interest in testing teachers for entry into teaching, there has not been until recently a corresponding level of interest in the process of translating standards into effective programs for teacher preparation and evaluation. Now, fortunately, researchers and practitioners are giving more and more attention to the improvement of beginning teacher evaluation.

A licensure process should ultimately measure several different kinds of knowledge and skill. The knowledge that underlies good teaching is not always obvious from the activities that one could observe watching good teachers teach. Nonetheless, that knowledge is important to effective teaching, and there are important reasons to assess the acquisition of that knowledge base directly. This is a critical point for improving teaching, because much teacher preparation and induction has focused solely on technique; teachers are trained in specific methods without sufficient grounding in the sciences and theory that underlie them. To understand the absurdity of this practice, imagine training doctors in the mechanical techniques for treating heart disease without having first taught them the pathology and physiology, anatomy and epidemiology necessary to permit diagnosis and evaluation of alternative treatments. Similarly, teachers need an understanding of the fundamental sciences that underlie pedagogy: knowledge of human behavior and motivation, knowledge of cognitive psychology, knowledge of child growth and development, and so on. When teachers acquire specific techniques without that foundation, they have no basis on which to evaluate why a particular tactic has failed, nor do they have the knowledge to help them decide what option should be tried in its stead. Because one cannot infer the mastery of a broader base of knowledge simply because a teacher exhibits a specific technique, both training and assessment need to explicitly deliver and evaluate such knowledge.

It is also central to teacher professionalization that candidates learn to apply knowledge appropriately in different contexts and to use skills in performing diverse teaching tasks. A simple test of knowledge is not sufficient to assess teaching ability, because it is possible to know a great deal about the principles of good teaching without being able to handle the numerous things that happen simultaneously in a classroom.

THE DESIGN OF A TEACHING INTERNSHIP

In teacher education, students should gain knowledge of the sciences basic to teaching and the methods of effective teaching; in the internship, they should learn to apply that knowledge to teaching situations. Skills for managing the learning process are developed by observing and working with students and by selecting learning materials, assessment tools, and teaching strategies under the guidance of expert practitioners. As interns progressively gain knowledge and skill, they should be provided greater latitude to make decisions and teach students, but always under supervision.

To achieve its goals, the internship must be carefully structured to provide for supervised clinical experiences that cover all of the major domains of teaching practice and provide opportunities to learn about the variability in student learning styles and stages of cognitive development. These clinical experiences should be supplemented with guided instruction and counseling that encourages interns to reflect on their teaching and its effects on learners; aids the acquisition of wider repertoires of teaching strategies; and relates problems of practice to research on teaching and human development. In preparation for professional practice, the internship should also provide opportunities for interns to participate in institutional and departmental decisionmaking and reviews of policy and practice.

If internship programs in teaching were modeled after those in other professions, they would differ from current beginning teacher evaluation programs in a number of ways.

1. The intern would not only work directly with clients but also observe and learn from experienced professionals interacting with clients. Learning by modeling is a precept of an internship. Learning only by doing—that is, by trial and error alone—is what beginning teachers do now, and it is much less effective.
2. The intern would assume progressive degrees of responsibility for client service.
3. The intern would receive regular supervision and guidance from senior teachers.
4. The programs would require that all interns experience *particular* types of situations for decisionmaking and practice under supervision, including a range of tasks and types of clients.

Unfortunately, many of the current state-mandated beginning teacher programs focus so much on evaluation that they have forgotten the equally important goals of supervision and guidance. Because these programs are tied directly to licensure decisions, they focus on a training process for getting candidates prepared to perform to the specifications of particular evaluation instruments. However, they do little to encourage candidates to teach reflectively, or to evaluate what they are doing and assess whether it's working or not working and why, or to understand how to make better decisions, or to learn to juggle the various concerns of teaching.

Fox and Singletary (1986) observe that few beginning teacher programs focus upon providing the novice with the assistance required to ease the critical transition from student to teacher. The authors point out that "few [programs] focus on the goals of developing a reflective orientation and the skills essential to self-evaluation." Without these, beginning teachers are likely to be frustrated and unable to cope with the demands placed upon them. In fact, the authors have concluded that beginning teacher evaluation programs devoid of structured assistance will increase rather than reduce the pressure on new teachers.

Borko (1986) observes that it is because the programs were created primarily to evaluate candidates for state certification that they fail to provide useful training:

> Most state-mandated [beginning teacher] programs require that beginning teachers demonstrate competence in a standardized set of teaching behaviors in order to receive certification. Assistance is often viewed as remediation and limited to observed deficiencies in the generic teaching competencies assessed within the program. Because certification criteria must be consistent across the state, most programs are not context-responsive. Moreover, the primary function of state programs is gatekeeping or screening. Thus, competing concerns for individual teachers' professional growth on the one hand, and for establishing a defensible data base to support a recommendation against certification on the other, often shape the nature of assistance.

If teaching were to follow the lead of other professions, beginning teachers would not be evaluated for licensure on the basis of on-the-job observations. Instead, the internship would be a distinctly separate step en route to the licensing exam. In states that have tried to combine internship with licensure decisionmaking, the practice has suffered from three major shortcomings: (1) the rating instruments fail to take teaching context or content into account because they seek objectivity by specifying a single set of uniform teaching behaviors to be tallied in a small number of classroom observations; (2) the assessment systems fail to guarantee reliable assessment across candidates because they evaluate candidates in diverse job settings and performance situations, thereby compromising the fairness of licensing decisions; and (3) the licensing assessments are made in part by employers who are also responsible for hiring and the granting of tenure, thereby entangling licensing and employment decisions (Wise and Darling-Hammond, 1987).

That on-the-job evaluation is problematical should be suggested by the fact that no other profession now uses it as the basis for state licensing. Upon reflection, its inappropriateness becomes clear. Teachers are not licensed to instruct a particular group of children, such as "fifth graders at Kennedy Elementary." Instead, they are licensed to teach children who differ with respect to grade level, stages of cognitive and psychological development, learning characteristics, academic achievement, educational opportunity, socioeconomic status, family attitudes toward education, and many other characteristics. Assessing a candidate's ability to instruct children in one classroom provides little information about whether that candidate is likely to be effective in teaching children with very different characteristics and educational needs. Furthermore, how well a teacher performs on the job is a function not only of his or her knowledge, skills, and disposition, but also of the particular teaching environment. It is, in principle, unfair to assess a teacher's performance without taking these factors into account. Otherwise, random factors—district resources, curricular approaches, student characteristics, and so on—will determine how well a person appears to perform.

A program should require that all interns experience particular types of situations for decisionmaking and practice, including a range of tasks and interaction with different types of students. In taking clinical training seriously, we need to identify those things that all beginning teachers should encounter and learn to master, rather than allowing happenstance to determine what they actually encounter and learn as a result. Since teachers are licensed to teach *all* students in the subject area(s) or grade levels for which they receive that license, they should be taught how to work with a range of students. The profession needs to specify a set of educational goals for the internship experience, and those goals should drive the design of programs. And if teaching were to follow the lead of other professions, candidates would complete that experience before sitting for the clinical practice examination—the last step before the license is granted.

BENEFITS OF AN INTERNSHIP

The development of residency or internship programs in teaching will serve some other goals as well. Rates of attrition among teachers are very high in the early years: most studies find that 30 to 50 percent of new teachers leave within the first five years of teaching (Grissmer and Kirby, 1987). During a period of teacher shortage, it is especially important that the profession not lose one-third to one-half of the people who prepared to enter it. A setting that provides assistance and support to beginning teachers is likely to make a tremendous difference in retention rates. One of the greatest predictors of commitment to the profession is a sense of efficacy—the teacher's belief that he or she is making a positive difference in the lives of students (Rosenholtz and Smylie, 1983; Bredeson et al., 1983; Chapman and Hutcheson, 1982). Many teachers who feel inadequately prepared for their jobs feel unsuccessful in reaching students. Consequently, they leave the profession after a short time. Making beginning teachers more successful will enhance commitment to the occupation.

By separating the formative assistance task in an internship from the summative examination, it will be possible to encourage reflective teaching. It is difficult to be openly reflective and critical about one's work if one is being evaluated for licensure at the same time and in the same context. Other professions have recognized this danger and have reserved the residency or apprenticeship program as a time for honest, evaluative learning experiences that enhance and encourage reflective practice.

In addition, the internship offers a setting in which to encourage the development of ethical standards and observe, in the case of teaching, whether candidates have the kind of concern and care for children that will allow them to become honorable members of the profession. While most professions consider ethical and moral commitment to be important aspects of professional practice, these attributes cannot be assessed well in a paper and pencil test. Just as there are some kinds of learning that can only be developed in an internship program, so too are there some attitudes that can only be evaluated in the context of actual practice.

The supervisor's role is to ensure that interns receive a thorough clinical preparation by giving frequent and formative evaluative feedback, and by fostering explicitly both reflection on practice and professional ethical awareness. For example, psychology internships explicitly seek to instill—along with technical skill—an understanding of professional and ethical responsibility and an appreciation of the intern's own personality, biases, strengths and weaknesses; similarly in medicine, the internship and residency requirements stress the candidate's ability to reflect on his or her practices and devotion to ethical standards.

These attributes cannot be instilled in formal preparation programs or fully tested in examinations. But they are legitimate, indeed extremely important, bases for professional licensure. The internship allows a meaningful setting for developing, observing, and verifying these kinds of qualities.

The internship may provide occasions and events for assessment as well. For example, in some medical specialty board examinations, doctors must evaluate specific cases they handled during their residency and explain why they did what they did. In architecture and engineering, the candidate builds up a portfolio over the course of the residency. Using real-world teaching experiences from internship as one foundation for testing can heighten the validity of the assessment of knowledge and practical skills.

But the internship should not be viewed only as a prelude to testing. The actual teaching experience is a more complete and valid representation of teaching performance than any examination—written or performance-oriented—can be. The internship is the only setting in which certain professional goals, such as inculcating and evaluating the moral and ethical components of teaching, can be pursued in a safe manner. It is a setting in which context and history can be taken into account, an occasion for structured teaching of clinical skills, and an opportunity for valid assessment of professional capacities that go beyond testable knowledge.

In David Berliner's terms, the internship is the first step on the path from novice status to expertise. It is the place where interns can attain strategic knowledge as to when general rules apply and when they don't. Here they can attain the kind of proficiency that only practice can give; they can develop the "sixth sense" of appropriateness in judgment and timing; they can make sense of what is observed and experienced; and they can come to know what to pay attention to, what matters, what has instructional significance.

The internship should allow time both to observe and to practice. Interns should be able to observe and mimic what experts do, even when it is not articulated, as well as profit from the tutelage of these experts, who will offer them analysis and discussion of their teaching. The internship should offer opportunities for observation, practice, debriefing, counseling, and consultation, along with seminars and other didactic experiences. By combining an assurance that all prospective teachers will undergo such training with valid assessment of beginning skills, it will be possible to assure the public that all entrants to the profession have adequately mastered the basic knowledge and skills needed to perform responsibly *before* they are licensed to practice independently. In addition, this approach holds promise for improving the overall quality of teaching practice by acknowledging the complexity of teaching and encouraging the acquisition of a broad set of insights and abilities.

Most states have until now relied on either multiple-choice paper-and-pencil tests of knowledge or on-the-job assessments of performance for beginning teachers. The former approach cannot adequately assess the ability of teacher candidates to apply knowledge with sound judgment in complicated nonroutine situations. The latter approach does not provide a reliable and generalizable assessment of teaching knowledge and abilities. The benefits of a new approach—one that balances the profession's need for supervised clinical training and assessment with a valid and reliable licensure process—will be many. And foremost among them is the development of public confidence in a competent teaching profession.

II. INTERNSHIPS IN THE LICENSED PROFESSIONS

In the twentieth century, most of the professions have evolved a tripartite system of induction, consisting of (sequentially) education, experience, and examination. New York State's Board of Regents, for instance, licenses 31 professions; 15 of these, ranging from acupuncture to professional engineering, require candidates to complete a formal program of education, undergo a certain period of supervised or unsupervised practice, and then take a standardized examination. The examinations of eight professions—from certified shorthand reporting to veterinary medicine—include a practical component that tests candidates' abilities to perform tasks similar to those that will be required of them on the job (Credentialing Requirements, 1988).

In some professions, experience is seen as such an important part of training that a structured program of supervised practice is required for licensure. In most cases, this internship is a residue of an apprenticeship, and it calls upon experts within the profession to serve as models and trainers for novices. Pharmacy and ophthalmic dispensing, for instance, both require licensure candidates to have had from six months to two years of supervised experience under the guidance of a licensed practitioner (Credentialing Requirements, 1988), as do each of the four professions—engineering, psychology, architecture, and medicine—discussed below.

FOUR MODELS: ENGINEERING, PSYCHOLOGY, ARCHITECTURE, AND MEDICINE

The internship in each of the four professions we examine is embedded within a larger program of education-experience-examination; candidates complete a formal educational program, undergo a practical exposure to the profession, then take an examination that tests professional skill. There is some variation in this scheme: in two cases (psychology and medicine) additional preservice experiential components are included in the formal education process, and in two cases (engineering and medicine) an additional examination precedes the main experiential component.

Licensure is an extremely complex subject. Terminology varies across and even within professions, and each profession offers several tiers of certification. Doctors may be simply licensed, or licensed and also board certified. Architects may be simply registered, or registered and also board certified. Psychologists may be simply licensed, or licensed and also registered. Engineers may practice without a license, or may be licensed as professional engineers.

The requirements below describe the most rigorous standards in each profession, the standards required to become a professional engineer, registered psychologist, board certified IDP-trained architect, or board certified doctor. Viewed as a set, these four professions illustrate both the similarities and differences among professional licensure processes today. A brief summary of both the internship and its context in each profession follows. (More detailed discussion of each of the four professional internships is included in App. D.)

Engineering

Becoming licensed as a professional engineer in most states is a four-part process. One must first graduate from a four-year engineering program, then pass the Fundamentals of Engineering (FE) examination, an eight-hour multiple-choice test of basic engineering knowledge. After passing the FE examination, the candidate is designated an "engineer-in-training." In order to advance beyond this level, the prospective professional engineer is required to practice for four years as an intern. The setting must allow the intern to assume a progressive degree of responsibility for engineering tasks; beyond this, no requirements are imposed on the internship by any central regulating board. More than in any of the other professions, the internship in engineering is simply the first years of working. After the internship, the candidate takes the Principles and Practice of Engineering (PE) examination, an eight-hour essay test that requires the candidate to solve actual problems in six of fourteen areas of engineering. A candidate who receives a passing score on the PE examination and submits evidence of completion of all other prerequisites is eligible for registration as a professional engineer (National Council of Engineering Examiners, 4–8).

Psychology

Becoming licensed as a professional psychologist in most states is a three-part process. A candidate must first complete the academic requirements of a doctoral program in psychology, which generally includes, in addition to coursework, a 400-hour predissertation practicum experience. The candidate must then practice for one or two years under supervision. In some states this requirement may be met with a predoctoral postdissertation internship; in others, the experience must be postdoctoral. American Psychological Association (APA)-accredited internships must meet standards for administration, staff, interns, and program and, while no specific areas of training are required, psychology internships are fairly structured and include didactic training alongside clinical experience. The final step in the psychology licensure process involves passing the Examination for Professional Practice in Psychology (EPPP), a 200-item objective multiple-choice examination of psychological knowledge, as well as any state-developed oral or essay examinations. A candidate who receives a passing score on the EPPP submits evidence of completion of all other prerequisites, and provides confirmation of good moral character is eligible for licensure as a professional clinical psychologist (AASPB, n.d.a.; AASPB, n.d.b.; AASPB, n.d.c.).

Architecture

Licensure in architecture is a three-part process. The candidate must first complete the educational requirements of the profession: three and a half years of architectural training, which may be part of either an undergraduate or graduate program. Following the formal education component, candidates undergo a structured three-year internship at an architectural firm, during which they must accrue a specified number of hours of practice and observation in 14 task areas. The candidate then takes the Architect Registration Examination, a four-day, eight-part test that includes multiple-choice and essay questions as well as actual architectural design problems. A candidate must pass all sections of the test and submit appropriate verification of education, internship, and moral character to be licensed (NCARB, 1987a).

Medicine

Licensure as a board certified physician is at least a five-part process. The candidate must first complete a four-year MD program at an accredited medical school, which includes, in addition to coursework, a significant amount of field experience. The candidate then takes one of two examinations: the Federation of State Medical Boards' FLEX I examination, or Part II of the National Board of Medical Examiners' (NBME) three-part examination series. (Candidates who elect the NBME route must take Part I of the series upon completion of their second year of medical school.) After passing the FLEX I or NBME Part II, the candidate undergoes a one-year internship, after which he or she takes either Part III of the NBME examination series or the FLEX II. Candidates seeking board certification then begin a two- to five-year residency; each medical specialty's regulatory board prescribes a structured residency program. Each board sets its own standards for a postresidency examination, but most include both an oral and a written component.

COMMON FEATURES AMONG INTERNSHIPS

Despite differences in structure and degree of standardization, there are a number of important common features among internship programs in architecture, psychology and medicine. In all cases, the intern must have completed a degree in the professional field before entering the internship, and must complete the internship before sitting for a professional examination. Beneath these easily apparent structural similarities are a number of deeper affinities, characteristics that represent the key features of a professional internship:

1. The intern has a special title (intern-architect, intern, resident) that denotes a special role vis-à-vis responsibilities to clients.
2. The internship takes place full time in a clinical setting.
3. The intern assumes a progressive degree of responsibility.
4. The intern receives regular guidance and supervision from practicing professionals as well as professional educators.
5. The intern has an opportunity to observe professionals interacting with clients.
6. Didactic training accompanies clinical experience.
7. The intern is exposed to broad aspects of the field, not simply areas of personal interest.
8. The intern receives periodic formal evaluation.
9. Training goals for the intern outrank service goals.
10. The intern is paid, and is paid less than a full professional salary.

These common features emphasize an important property of the internship: its transitional status. Interns are neither students nor professionals. Though they work with clients, they are offered supervision, guidance, and frequent evaluation. They are given tasks appropriate to their experience level, and are expected to explore broad areas of the field. A good portion of their time is spent observing experienced professionals, and didactic training runs alongside their field experience. The accouterments of the position reflect the intern's status as neither student nor professional. Interns have their own special title, and while they are paid, the pay is less than what a full professional would receive. Thus an internship is neither the last year of formal education nor the first year of fully independent work. Rather, it is a time for learning, reinforcement, and some screening out, the public's penultimate assurance of the candidate's ability to practice independently.

One final feature is present in psychology and medical internships but absent from the other professions:

11. A "critical mass" of interns is placed at any given internship site to allow for peer support, structure, and an efficient use of resources.

This aspect, though not absolutely essential, makes it possible for an institutional ethos to develop in which the internship site sees itself as not only a provider of services to clients, as an engineering or architectural office might, but also as a training site for future professionals, as a structured psychology internship program or teaching hospital would. The differences between the evaluation processes, nurturing and formative in the case of psychology and medicine, more mechanical and summative in the case of engineering and architecture, reflect the degree to which placing the internship at the center of the host site's responsibilities can affect the entire tone of the experience.

ALTERNATIVE WAYS OF DEFINING CONTENT

Although the central purpose of the internship is the same in the professions described above, each of the four programs we examined has its own way of defining the internship's content. Requirements may be organized in at least four ways: by simple time spent (as in engineering), by tasks completed (as in architecture), by skills mastered (as in psychology), or by breadth of exposure (as in medicine). In actuality, each profession incorporates features of all four of these models, but for the sake of discussion, it is valuable to identify each by its primary attribute.

Time Spent

In engineering, the engineer-in-training must spend time practicing under the supervision of a professional engineer; successful completion is defined simply as having spent four years as an "intern." Such a model provides great flexibility and makes fewest demands upon the employer, but it leaves the internship's structure (if any) to chance, and provides the intern with minimal support.

Tasks Completed

In architecture, the intern-architect must prove that he or she has spent a specified number of days performing or observing architectural practice in three major categories, such as design and construction, and fourteen smaller areas, such as building cost analysis; successful completion is defined as having spent appropriate amounts of time on various architectural tasks. Such a model guarantees some uniformity in experience for all interns, but does not necessarily provide for individual needs and differences among candidates.

Skills Mastered

In psychology, interns are generally rated on their mastery of various skills in case management, research, and assessment. Successful completion is defined as having spent one full year working under close supervision and having mastered certain essential skills. Such a model to some extent ensures competency (although it is limited in its effect by the fact that the ultimate judgement must simply be "pass" or "fail"), but requires the greatest level of commitment on the part of the employer.

Breadth of Exposure

In medicine, the intern is required to participate in a range of rotation assignments, from gynecology, to geriatrics, to neurology; successful completion is defined as having spent one full year working under close supervision and having been exposed to a number of central domains of the profession. Such a model guarantees uniformity and ensures that all professionals will have a sense of the field as a whole, but does not necessarily guarantee mastery of specific skills or exposure to specific tasks.

EVALUATION OF INTERNS

Upon completion of the internship, each of the four professions requires some kind of summative evaluation of the intern's work. In addition, psychology, architecture, and medicine require periodic formative evaluations during the course of the internship. (Examples of evaluation forms may be found in App. A.) The evaluation models vary by profession, but one crucial feature is constant: each profession relies on subjective judgment by other professionals to establish the candidate's capacity for independent practice; not one of the professions provides evaluators with a checklist of skills and behaviors to observe and tally.

In each of the professions, the internship is only one of three or more points at which the candidate's competence is assessed. Thus, the subjective evaluation falls within a larger context. The candidate must also demonstrate mastery of the profession's underlying knowledge base through completion of a formal education program and sometimes a test of professional knowledge. In a simplified environment, he or she must demonstrate mastery of the profession's fundamental duties through a written and sometimes oral test of professional skill. But the internship offers the only opportunity to observe the candidate in a sustained, actual setting, and while the evaluation of the internship is neither standardized nor objective, it is perhaps the most relevant to actual future practice.

Engineering

In engineering, two models exist for verifying the candidate's successful completion of the internship. In the first, a small board of professional engineers evaluates a detailed list and description of activities submitted by the applicant and thereby determines whether the experience has been acceptable. In the second, responsibility for evaluating the candidate's experience falls on the practitioners with whom the applicant has had professional contact; each employer who has worked with the candidate is asked to fill out a form verifying the applicant's employment, experience, ability, and competency. In both of these models, the profession is self-regulating; the state trusts the board to certify the competence of potential professional engineers, and the board in turn trusts the practicing professional engineers of the state to prevent entrance into their ranks of anyone unfit for independent practice.

Psychology

Evaluation in psychology internships is primarily formative. While the greatest part of the evaluation happens through informal contact between interns and their supervisors, a norm that has been established in psychology internship programs, more formal periodic evaluations are a mandated part of APA-approved psychology internships. These evaluations tend to take place quarterly or triannually, and seek to ensure, in the words of one program, "that the interns are making optimal use of the experience at [site x] and that the experience meets the needs of the interns and their sponsoring universities" (Children's Hospital, 1988, 5). The structure of the evaluation forms is left to the discretion of the individual programs, but most try to isolate essential skills, such as case management, ability to establish rapport with patients, and ability to communicate clinical data in writing and verbally, and ask the supervisor to evaluate the candidate's strengths and weaknesses, often using a set of numerical scales. Upon completion of the internship, the internship site sends a report back to the intern's graduate institution. There is no standard form for this final evaluation; generally it indicates that the intern has or has not successfully met the basic standards of professional practice, and indicates areas in which the intern is particularly strong or weak.

Architecture

The evaluation process in architecture is far less feedback-oriented than psychology's. Since the structure of the IDP architecture internship mandates that the candidate complete activities in a specified number and range of areas, most of the evaluation process simply focuses on establishing that the required diversity of experiences has actually occurred. Verification comes from four quarters: the intern (recording), the sponsor/employer (verifying), the adviser (acknowledging), and the IDP board (checking). Interns maintain continual records of their activities using forms provided by the IDP central office (see App. A), which their sponsors/employers sign monthly. No place exists on the forms for the sponsor to indicate whether the work was inadequate, satisfactory, or exemplary; it is assumed that if an intern's work is of unsuitable quality, he or she will not have been retained as a paid employee. Three times each year, the intern's adviser, an architect from another firm, signs the record if he or she believes it to be accurate. Finally, upon completion of the internship, the record is submitted to the IDP office itself, which, in an essentially pro forma process, checks the intern's recorded activities against IDP standards.

Medicine

The evaluation process in medicine is similar to psychology's in its emphasis on the formative; the process serves to guide constructive criticism between residents and preceptors, to make preceptors and residents more aware of their responsibilities in clinical teaching, and to improve clinical teaching and resident performance (Saint Margaret Memorial Hospital, 1988). The actual evaluation process is left to the discretion of the individual program, but all board certified specialties require that programs offer some systematic and regular routine of fair and objective assessment of residents. As in psychology, most feedback comes from the daily contact between residents and preceptors, but all programs offer more formal evaluation as well, generally on a monthly or bimonthly basis. Often, preceptors are asked to rate residents on their mastery of fundamental skills (e.g., patient management, physical diagnosis skills) and attitudes (e.g., dependability, ability to work with others), and residents are frequently asked to rate their preceptors in parallel areas. The rating forms enter the resident's permanent file, and at the end of the residency they are used, in conjunction with other information, to determine whether the resident has satisfactorily completed the requirements of the residency. As in all of the other professions described, guided judgments by expert professionals are the basis for decisions about candidate competency.

III. STANDARDS FOR AN INTERNSHIP PROGRAM

With the assistance of The RAND Corporation, the Minnesota Board of Teaching convened a committee of eight practicing teachers and teacher educators[1] to develop standards for an internship in teaching that would be part of the state's licensing process. After examining and discussing internship standards from a number of other professions, descriptions of program content and intern experiences, and examples of intern evaluation forms and procedures, the committee produced a document establishing standards for a teaching internship.

The heart of the document is a series of standards addressing five aspects of the internship program: (1) educational program, (2) interns, (3) administrative structure, (4) faculty and staffing, and (5) facilities and resources. These standards establish basic criteria that programs would have to meet to be accredited by the Board of Teaching. Candidates will be required to complete accredited internship programs before being permitted to sit for Minnesota's test of teaching skills (SKOPE-S), the proposed final step in the state's licensing process. When the program is fully implemented, internships will occur within the structure of institutionalized programs or professional practice schools meeting all the standards established by the committee. It is recognized that internship programs will take some time to set up and fine tune. Therefore, during a transitional period (of length to be determined), candidates completing programs meeting only the basic educational program requirements (Section I of the internship standards) would be eligible for licensure.

In addition to articulating internship standards in these five areas, the committee document discusses the preconditions for establishing a mandatory internship. It opens with a preamble stressing that the legislature must provide sufficient funding to schools and universities involved in internship programs to allow them to be held accountable for their performance. If adequate funding is not provided, the drafters agree, an internship should not be a prerequisite for licensure. The document then describes the mission of a licensing process for teachers: to provide the public and the profession with a high level of confidence that a new teacher is fit for responsible independent practice. Given this mission, the internship is an indispensable prerequisite for independent practice, since it offers a unique opportunity for sustained observation and coaching of prospective teachers prior to their licensure as professionals. The document goes on to define the basic terms used throughout the standards: internship, intern or teacher intern, internship program, and clinical school. (The standards document is reproduced later in this section.)

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[1] The names and positions of the committee members were: Dale Rapp, teacher and chair, MBOT; Loretta Agee, teacher; Judy Rohde, teacher; Gloria Fifield, teacher; Evelyn Lynch, teacher educator; Marie McNeff, teacher educator; Eugene Anderson, teacher educator; and Sherri Lindborg, school psychologist.

Settings for Internships

Internship programs may be designed in a variety of ways and may take place in different kinds of settings. A program may be operated within one or more schools in a given school district; it may be developed and operated by a consortium of districts or by a county or regional office serving several districts; or it may become the cornerstone of a school organized especially to support this kind of training function (i.e., a professional development school or clinical school).[2]

Some proposals for such schools have suggested that they might serve more than one beneficial purpose by locating, as teaching hospitals have done, in traditionally underserved areas in central cities. There, students may begin to receive state-of-the-art services from expert practitioners while novices are meanwhile acquiring the sensitivity and skill to teach effectively.

The settings for internship programs are likely to vary, especially in the short run, depending on the special needs and circumstances of variously situated schools, as well as their relationships—in terms of physical location as well as working relationships—to particular schools of education. This should not be troubling so long as all the programs, regardless of setting, offer a common educational experience to all interns.

Educational Program

In Part I of the Board of Teaching committee document, the standards for the educational program describe the core content and goals of the internship, including standards for duration, areas of instruction and experience, curriculum, essential characteristics, and descriptive materials. Standard I.A establishes that the program will last *full time for one academic year.* This standard distinguishes an internship from the current student teaching experience, which is neither full time nor full year, and stresses that the internship is to be an intensive, sustained exposure to the practice of teaching.

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[2] The Minnesota standards indicate that professional development schools will be public elementary or secondary schools rather than private schools, because state funding formulas and governance arrangements make this a more manageable and legally defensible proposition. However, the task force suggested that it might be possible to include nonpublic schools as sites in a consortium managed under the aegis of a public school district.

Standards I.B.1 to I.B.9 describe nine activities that represent the *fundamental features of an internship experience in teaching*, including using and analyzing research, observing other teachers, and reflecting upon and analyzing teaching experiences. They define the essential areas that a professional teacher should be exposed to before independent practice, and suggest an expected tone for internships: one of support, broad exposure, and immersion in the subtleties of the profession. The standards go on to explain that experience in these areas may be acquired either didactically or clinically, and suggest a variety of appropriate methods of exposure, ranging from lectures and assigned readings to in-class coaching and support groups. This list of methods allows for flexibility within and among internship programs, and permits exposure to a wider range of issues and circumstances than would be possible with a less inclusive conception of appropriate methods.

One of the I.B standards, I.B.3, merits individual discussion. The standard requires that the intern experience an *adequate variety of teaching situations*, including variety in student age or grade levels, student learning characteristics, subject areas, student demographic or cultural characteristics, and types of communities. Familiarity with different settings may be achieved through a number of means, including instruction, observation, or actual practice, but to the extent practically possible, exposure should be gained through actual experience. In conjunction with standard II.B below (that the intern will be evaluated in at least two different teaching settings), standard I.B.3 makes it mandatory that the intern actually practice in more than one teaching environment. This requirement might be met by, for instance, spending one semester in an affluent suburban school and one semester in an impoverished inner city school, supplemented by videotapes and essays on rural education; or by spending ten weeks in each of four grades within a rural elementary school, supplemented with time spent observing an urban elementary school; or by devoting one semester to observing and helping to teach each of a high school's math classes and spending the next semester with complete responsibility for two sections of eleventh grade math, supplemented by daily observations of these students' science and English classes. In each of these examples, the intern is provided with breadth of exposure.

Standard I.C establishes that an *appropriate curriculum* for any internship program will be based on the common developmental needs of beginning teachers, and stresses the importance of providing interns with both formal and informal instruction offered throughout the year. This standard requires internship programs to view themselves as actual programs (as opposed to ad hoc collaborations between individual mentors and interns), and to establish educational opportunities developmentally appropriate to the needs of interns.

Standards I.D.1 to I.D.3 require programs to provide interns with the *assistance necessary to perform as beginning teachers*, including systematic and regular support, an appropriate and progressive degree of responsibility, and an optimal teaching load. These three support mechanisms are meant to ensure that interns will not be overwhelmed by inappropriate levels of responsibility during their first year in the classroom.

Standard I.E requires programs to *develop and distribute descriptive materials* describing their goals and content. This ensures that interns will be able to consider and select programs on the basis of their own needs and interests.

Interns

The standards for interns address issues relating directly to interns, including their number, evaluation, and entry and exit requirements. Standard II.A calls upon each program to determine the *number of interns* it will best be able to serve, and expresses the preference that each program have a sufficient number of interns to allow for peer interaction and support, as well as efficient and adequate instruction. A program that serves a critical mass of interns is more likely to perceive part of its mission to be the training of future professionals (as well as the instruction of students) than is a program that takes on only a few interns each year. But because requiring a minimum number of participants might eliminate otherwise appropriate settings from consideration as internship sites, the standard allows for some flexibility.

Standard II.B requires programs to establish *procedures for assessing the interns' acquisition of the skills and dispositions* required for a beginning teacher in the state of Minnesota according to the state's *Vision for Teacher Education*, and suggests a variety of means by which this might be achieved. The standard also establishes that the intern must be assessed in at least two different settings, such as third grade and fifth grade, urban and rural, or low and high SES. This standard emphasizes that the purpose of the internship is to cultivate in beginning teachers the knowledge, skills, dispositions, and ethical standards that the state of Minnesota has deemed desirable in beginning teachers, and calls upon the internship to serve as one of the screens in the licensure process. It also establishes the importance of providing the intern with regular formative evaluation, and, with standard I.B.3, establishes the need for the intern to practice in at least two diverse settings.

Standards II.C and II.D establish *when in the prospective teacher's career the internship is to take place*: after having completed all relevant didactic and practicum experiences necessary for graduation from an approved teacher education program, and prior to sitting for the Minnesota test of beginning teaching skills (SKOPE-S). The first of these eliminates the possibility that the internship would become an "alternate route" for individuals who have not participated in a formal teacher education program; the second establishes the internship's role as a prerequisite to sitting for the skills test.

Administrative Structure

The standards for administrative structure establish norms for the governance of the internship program, including requirements for the director, participating institutions, advisory board, resource allocation, staff and intern selection, and camaraderie. Standard III.A establishes that an internship program should have a *director* with appropriate qualifications who will devote a sufficient amount of time to the internship program so that it will work effectively. This ensures that the internship will not become everyone's second priority and no one's first.

Standard III.B states that an internship program will involve one or more school districts and one or more teacher preparation institutions. This ensures that internship programs will be *collaborative efforts* between schools and institutions of higher education, and establishes the possibility of consortia. Standard III.C requires each program to have an *advisory* board, which is intended to give guidance on policy decisions and to encourage close working relations between the parties involved.

Standards III.D.1, III.D.2, and III.E compel programs to establish procedures that will institutionalize the internship. Standards III.D.1 and 2 require programs to describe the *process by which resources*, including staff, are *allocated to the program*, and to provide sufficient administrative support and staff compensation to allow the program to function smoothly and effectively. This standard requires institutions to look upon the internship program as a central responsibility of those involved with it, and not as a peripheral project a few staff members have chosen to spend some time working on. Standard III.E requires a program to establish *procedures for appointment of staff, selection of interns, and ongoing review and evaluation of the program*, further institutionalizing its status. Standard III.F requires all programs to *encourage camaraderie* among interns and to facilitate information exchange among and between interns and faculty. This standard is particularly directed at consortia, which, because of their lack of a central site, risk becoming fragmented.

Faculty and Staffing

The standards for faculty and staffing attempt to ensure that internship programs will be staffed only by outstanding professionals who receive the support and training necessary to permit them to do an exemplary job. Standard IV.A states that the director and advisory board will establish *procedures for selecting faculty and staff*, and that personnel will be selected both from school sites and institutions of higher education. This standard creates a norm that staff will be selected according to certain criteria, not assigned as if to cafeteria duty, and further ensures that the program will be a collaboration between school districts and institutions of higher education.

Standard IV.B requires *internship staff to meet a variety of criteria*, including having a strong teaching record, adequate special training, and a demonstrated interest in the profession. This standard requires programs to provide interns with professional role models who exemplify the norms that the internship seeks to inculcate. Standard IV.C requires programs to have a *staff of sufficient number and variety* to meet the requirements of the educational program, thereby requiring programs to allocate sufficient resources to permit adequate staffing. Standard IV.D requires programs to provide staff with *continuous professional development opportunities*. This standard not only serves to increase the quality of supervision and support that interns will receive, but also establishes a norm within the school of continuous growth and learning among all faculty members. The close relationship between an institution of higher education and the internship program site ought to open opportunities for sustained and meaningful dialogue between professionals at the university and at the school. Standard IV.E reminds the staff that it is their responsibility to participate actively in an *ongoing assessment of the intern's progress*, echoing at the staff level the institutional requirements established in I.B.7, II.B, and III.E above.

Facilities and Resources

The standards for facilities and resources establish guidelines for appropriate internship settings. Standard V.A states that internship programs will take place in *public school settings* in the state of Minnesota. This standard establishes that internships will take place in actual clinical settings. It is not intended to preclude the possibility of a private school participating in a consortium. Standard V.B states that an internship program should offer *sufficient program diversity* to ensure a variety of educational experiences, and should serve a student body reflective of the state's diverse population. This standard echoes the requirements of standards I.B.3 and II.B in requiring interns to understand and be exposed to the wide range of public education experiences in the state of Minnesota. It encourages schools whose population is fairly homogeneous to form consortia with schools that serve a more diverse population.

Standard V.C requires that internship programs have *adequate facilities, equipment and materials* to permit the program to meet the standards for educational experiences. The standard suggests a number of features, such as access to a professional library, sufficient space for intern instruction, and materials necessary for high-quality student and intern education, that a school site or consortium should provide. The standard is meant to encourage internship sites, and those governing bodies responsible for their funding, to create situations in which facility and resource limitations do not interfere with the intern's ability to benefit from the internship experience. The standard is not intended to prevent interns from working in settings where efforts to receive adequate funding have not yet been successful.

The next several pages reprint the recommendations made to the Minnesota Board of Teaching by its committee on internship standards.

RECOMMENDATIONS OF INTERNSHIP TASK FORCE TO MINNESOTA BOARD OF TEACHING REGARDING STANDARDS FOR INTERNSHIP PROGRAMS

PREAMBLE

Adequate funding will be provided by the legislature to schools and universities to provide the resources needed for excellent internship programs in which all participants can be accountable for their performance.

MISSION

The licensing process for teachers should provide the public and the profession with a high level of confidence that a new teacher is fit for responsible, independent practice. The MBOT is instituting the internship as a key component in the licensing process to provide an opportunity for prospective teachers to acquire and demonstrate the knowledge, skills, dispositions, and ethical standards necessary for such practice. The intern must successfully complete the internship (and other licensing requirements) as a condition for being awarded a continuing professional license.

STATEMENT OF INTENT

All candidates for a continuing teaching license in Minnesota shall undergo an internship. Initially, these internships may or may not occur within the structure of fully institutionalized programs or clinical schools. However, at minimum, all internships should meet the standards described in Part I herein.

It shall be the policy of Minnesota to develop and institutionalize internship programs throughout the state as soon as possible and make these opportunities available to as many candidates as is practical. These programs shall meet all of the standards herein.

It shall also be the policy of Minnesota to create clinical schools to serve as training sites for internship programs.

Definitions

An *internship* is a structured experience by means of which a candidate for teaching receives the supervision, opportunity for guided practice, education, assessment, and feedback needed to acquire and demonstrate the teaching knowledge, skills, and dispositions required for responsible, independent practice.

An *internship program* is a set of organized activities operated by schools and universities under a distinct administrative structure created solely for the purpose of training teacher interns. A program may be operated within a school district or across a consortium of school districts, in one or more schools, including clinical schools. Some components of a program may also operate on the campuses of higher education institutions.

Clinical schools, the educational analogue of teaching hospitals, are public schools serving the dual purpose of educating students and preparing teachers. Such schools will be staffed by a mix of highly expert professionals and teacher interns, with direct connections to a school of education. Although a variety of models may be appropriate, certain features, such as heavy staffing, a commitment to high-quality education for students and interns, exhibition of state-of-the-art practice, and an atmosphere of collegiality, should be present in all clinical schools. Whenever possible, such schools shall be established in areas of highest need, thereby providing a stable, highly skilled core teaching faculty to populations historically underserved.

I. THE EDUCATIONAL PROGRAM

A. **Duration**. The internship shall be full time for one academic year.

B. **Instruction and Experience**. By means of didactic and clinical experience, such as supervision, seminars, lectures, assigned reading, demonstration, in-class coaching and support groups, the internship will provide opportunities (including systematic instruction and experience) for:

1. Applying knowledge to the major tasks of teaching, including diagnosing students' needs, developing learning plans, delivering instruction, evaluating student progress, managing the learning environment, and other professional duties.
2. Reflecting upon and analyzing teaching experiences.

3. Experiencing an adequate variety of teaching situations, including variety in student age or grade levels, student learning characteristics, subject areas, student demographic or cultural characteristics, and types of communities. Familiarity with these diverse teaching situations can be accomplished by instruction, observation, or actual practice. To the extent that it is practically possible, familiarity should be achieved through actual practice in different settings.

4. Using and analyzing research.

5. Participating in a variety of professional activities beyond the classroom.

6. Observing other teachers.

7. Receiving systematic, ongoing assessment with procedures for intensive support as needed.

8. Instruction in professional ethics.

9. Familiarization with the operation of the entire school program, including knowledge of resources and procedures for acquiring needed services for students.

C. **Curriculum**. The curriculum will be guided by the common developmental needs of beginning teachers. In a progressive fashion, it should expose interns to topics appropriate to their level of training. It should support the translation of theory into practice, focusing both on applications of knowledge and practical concerns. The curriculum must be well organized, based on sound educational principles, and carried out on a regularly scheduled basis which includes organized formal instruction (prepared lectures, seminars, assigned readings, etc.) as well as less formal training (e.g., staff meetings, conferences, social interactions).

D. **Essential Characteristics**. In addition to systematic instruction and substantial experience in the areas listed above, a program should also provide:

1. Systematic and regular support, in the form of regularly scheduled individual supervision. As a general rule, each intern should have at least two hours of individual supervision weekly. This is in addition to teaching observations, conferences, and seminars.

2. An appropriate and progressive degree of responsibility for teaching students.

3. An optimal teaching load, such that the training functions of the internship are not overwhelmed by the service functions.

E. **Descriptive Materials**. Internship programs shall develop and distribute descriptive materials in which the goals and content of the programs and characteristics of the student populations and community settings are accurately depicted, so that interns may match the program emphasis with intern interests.

II. INTERNS

A. **Number**. Each program will determine the number of interns to be served, given the resources it has available. It is desirable that a program have a sufficient number of interns to allow for peer interaction and support, as well as adequate instruction.

B. **Assessment**. The program shall establish a procedure for assessing the acquisition of the skills and dispositions required for a beginning teacher.[3] These skills and dispositions must be developed and assessed in at least two diverse teaching settings, which vary by at least two dimensions listed in Part I.B.3. above, as appropriate to the specific license of the intern. The program may ascertain this acquisition by multiple measures, including:

- Observation
- Interviews and weekly conferences
- Teaching products, such as lesson plans, examples of student assignments, tests, etc.
- Self-reports by intern
- Clinical supervision
- Consumer satisfaction

C. **Prerequisites**. To be admitted to the program, interns must have graduated from or have completed all of the relevant didactic and practicum experiences necessary for graduation from an approved teacher education program.

D. **Exit Requirements**. The intern must successfully complete the internship prior to sitting for the Minnesota test of beginning teaching skills [Part II of the Skills and Knowledge of Professional Educators test (SKOPE)]. Successful completion will be determined by the director of the program on the recommendation of the program staff. Such determination should include an attestation that the intern has developed professional dispositions and meets the ethical standards of the Minnesota Teachers' Code of Ethics. [See App. C.]

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[3] See App. B, which is an extract from *Minnesota's Vision for Teacher Education*, pp. 22-30.

III. ADMINISTRATIVE STRUCTURE

A. **Director**. Each program shall have a director whose major responsibility is to maintain and enhance the internship program. The director must be licensed by the Board of Teaching or possess equivalent qualifications, and must devote a sufficient number of hours weekly to the internship program to ensure that it is effectively managed.

B. **Participating Institution**. Each program shall include one or more school districts and one or more teacher preparing institutions whose relevant teacher education programs are approved by the Minnesota Board of Teaching. These schools and IHEs must meet all applicable accreditation standards.

C. **Advisory Board**. Each program shall have an advisory board with representatives of all participating institutions, to advise on policy decisions and facilitate close working relations.

D. **Resource Allocation**. The program shall have a description of the process by which institutional resources, including staff, are allocated for the educational purposes of the internship:

1. Administrative support for the internship program shall be apparent in terms of adequacy and stability of resources and specific budgeting for training operations, including financial support for interns.
2. All participating institutions shall recognize the internship activities of staff as part of their regular duties and shall provide the time and structures necessary to support such work.

E. **Staff and Intern Selection**. The program shall establish an operational system for appointment of staff, selection of interns, supervision and evaluation of interns, assurance of due process for interns and staff, and ongoing review and evaluation of the program.

F. **Camaraderie**. All sites, including consortia, shall encourage camaraderie among interns and should facilitate information exchange among and between interns and faculty.

IV. FACULTY AND STAFFING

A. **Selection Procedures**. The director and advisory board will determine procedures for selecting faculty and staff. Staff will include personnel from both school districts and teacher education programs.

B. **Staff Characteristics**. The internship staff should have a strong interest in teaching and be willing and able to contribute the necessary time and effort to the education program. The key professional personnel, as teachers, clinical supervisors, and/or administrators, should:

- Have adequate special training and experience
- Participate regularly in professional activities
- Participate in their own continuing education
- Actively share teaching expertise
- Exhibit sincere interest in education research and development.

C. **Number and Variety**. The internship program shall be staffed by qualified educators in sufficient numbers to achieve its goals and objectives. A sufficient number and variety of staff are needed to provide the interns with the instruction, supervision, and support required of the educational program (as described above).

D. **Professional Development**. Programs shall provide continuous professional development for staff to better enable them to carry out their internship functions.

E. **Intern Assessment**. It is the responsibility of the staff to actively participate in an ongoing assessment of the intern's progress.

V. FACILITIES AND RESOURCES

A. **Site**. The internship shall take place in public school settings in the state of Minnesota.

B. **Program Diversity**. Those sites or consortia participating in an internship program shall, independently or jointly, offer sufficient program diversity to ensure a variety of educational experiences. These sites should also serve a student body reflective of the state's diverse population.

C. **Adequate Facilities**. School sites or consortia providing internship programs shall have adequate facilities, equipment, and materials to provide the educational experiences and opportunities set forth in the program requirements. These include: access to an adequate library providing standard reference texts, curriculum materials, and current professional journals; sufficient space for intern instruction; adequate facilities and technologies for interns to carry out their teaching and personal education responsibilities; a student record system that facilitates both quality instruction and intern education; laboratory and classroom facilities of sufficient quality to promote professional instruction; and all other materials necessary for high quality student and intern education.

IV. IMPLEMENTING THE INTERNSHIP: THE VALUE OF CLINICAL SCHOOLS

FINANCING THE INTERNSHIP

The first implementation issue is financing. One of the reasons that sound, supervised induction to teaching does not now occur is that no agency is financed to carry it out. Teacher education, particularly in state colleges, is financed as if it were primarily a didactic activity. In other words, the budgets of schools of education are predicated on the production of credit-hours of instruction, assumed to be carried out generally in large lectures and occasionally in small seminars. Funds for supervision of individual teacher candidates are meager to nonexistent. As a result, the practical preparation of teacher candidates is carried out in the low-budget enterprise known as student teaching. In this enterprise, low-paid graduate assistants and junior-ranking education school faculty members coordinate, manage, and oversee student teachers. Generally, these coordinators have very large numbers of student teachers to oversee. Thus, the real burden of supervising student teachers falls on "cooperating teachers," the practicing teachers who work with student teachers. Because no financing is involved, schools of education must rely upon the largesse of practicing teachers who volunteer. Thus, there is no quality control over who volunteers, and the motivations of some volunteers may not be altogether altruistic.

While schools of education are not financed to provide sound practical supervision to student teachers, neither are school districts. Nominally and legally, the responsibility for the supervision of beginning teachers (and, for that matter, all teachers) falls to the school principal. In certain instances, principals may adequately attend to the needs of beginning teachers, particularly when the number of beginners is very small. However, beginning teachers tend to cluster in particular schools, especially in cities; and, increasingly, city school districts are the ones in which new teachers will begin their careers. As a result, principals in some schools have a very high supervisory burden, and the quality of supervision is consequently limited.

The idea of mentors for teachers is gaining currency in many states today; currency, but not financing. Mentors, though they may receive a modest salary supplement, do not receive "released time"—time during which they are not expected to be teaching their own classes—to engage in direct supervision of interns. The cost of a salary supplement is modest in relation to the cost of reallocating teaching responsibilities so that mentors and interns have real time to work together. As a result, the growing popularity of "mentoring" contributes only modestly to the concept of the internship being advanced in this report.

[illegible] districts have only a partial incentive to allocate resources to the internship function. Tradition and convention have it that school districts are hiring fully qualified teachers when they hire new teacher education graduates. Traditions are hard to change, especially when conventional wisdom in some quarters is that knowledge and practice are not essential to good teaching. School districts, especially urban districts, may not capture the benefits of an increased investment in structured induction. As new teachers leave urban (or rural) school districts to teach in suburban districts (the traditional migration pattern), the originating district has made the investment but the returns on it will be captured by another (often wealthier) district.

Teacher candidates might pay for their own internships as they, in effect, now pay for their own student teaching by paying tuition for the opportunity to practice teaching without compensation. However, raising the cost of entry to teaching by requiring interns to forego income for a year-long internship does not seem like sound policy as teaching struggles over the next few years to attract candidates. Moreover, other professions do not require candidates to pay for their internships. Indeed, internships occur in clinical settings in which the intern performs services for pay and is supervised.

Since schools of education, school districts, and teaching interns cannot or should not finance internships, the responsibility must fall on the state. The benefits will be captured by the state, even as teachers move around the state. Of course, the state will lose the benefits for those who transfer out of state. A case can be made for federal support. The federal case is not far-fetched because the federal government has supported strengthening teaching hospitals for medical internships for nearly 30 years. In addition, the costs of medical internships and residencies are supported by higher formula allocations made to teaching hospitals in third-party payment schemes (both by government and private insurers). In short, the benefits of better-prepared practitioners are acknowledged and publicly supported.

Realistically, the development of a teaching internship in Minnesota and elsewhere must depend upon state support. It is conceivable that some internship programs might be launched with private sector funding, where concerned foundations or corporate givers perceive the benefits of strengthening beginning teacher preparation in this way. Such efforts could be helpful in planting the seeds. In the long run, though, institutionalized funding mechanisms will keep those seeds alive.

As conceived in this report, internships need not and probably should not operate in all school districts. They should operate only in school districts that want them and can muster a critical mass of interns and marshall the intellectual resources to properly implement a program. If not all school districts have internships, not all will have interns or what are now called first-year teachers. School districts without internships will be free to hire teachers after they satisfactorily complete internships.

The state has two options for the support of internships. The first is through a grant to school districts. The state could run a competition in which school districts and consortiums of school districts, in cooperation with schools of education, bid for funds. The competition should be judged on the basis of criteria developed from internship standards similar to those in this report. The winners would then offer internships for a specified period of time, say five to ten years, and would receive an annual grant.

Alternatively, the state could allow any district or consortium of districts (again in cooperation with schools of education) to run internships so long as they met internship standards similar to those in this report. In this case, the state could and should adjust state aid to pay for the internships. A formula could be developed that would compensate districts for the extra costs of the internship.

In both cases, the internships would have to meet state standards. In the former case, the state might have more leverage to shape programs, especially at the beginning. This leverage, and the ability to offer technical assistance where needed, may help the state address some predictable quandaries that might be more difficult to manage if internships emerged with less guidance. For example, the state may be concerned about insuring an equitable geographic distribution of programs while, at the same time, maintaining equitable standards for programs. The state may also want to assist new programs in forming new relationships and models, and in avoiding common pitfalls. The major point, however, is that the internship, as defined in this report, will require new resources to finance the time of the members of the internship staff.

STATUS AND COMPENSATION OF INTERNS

As construed in this report, interns are college graduates who are not yet licensed for independent practice. They are teaching, but are still learning to teach. They are not student teachers, but not authorized to teach without supervision. The internship is the culmination of teacher education and the first year of teaching. It is a prerequisite for the final test (SKOPE-S) to become a teacher. In short, "intern" is a new status.

School districts will have to treat interns differently. In particular, the school district must ensure that the intern is closely supervised. This will require, at minimum, that the district allocate senior personnel time to perform the supervision. While the intern may teach classes when no higher authority is present, that teaching will have been planned in consultation with the internship staff and will be reviewed with the staff as well. Clearly, direct supervision need not mean constant supervision. The point is that the intern is not solely responsible for the instruction he or she carries out.

The cost of supervision is high; indeed, it is the most costly component of teacher education. Its true cost is the reason that supervision is seldom carried out properly. If the internship occurs in a traditionally organized, self-contained classroom school, a teacher working full time as a mentor can supervise from seven to ten interns. Thus, the cost of mentoring is the salary of the mentor divided by the number of interns to be supervised. Supervision can cost from $3500 to $6500 per intern. For this reason, it may be more cost effective to restructure schools—to create clinical schools—to facilitate the supervision of interns. One possibility is team teaching, in which senior and junior teaching personnel jointly plan and deliver instruction to a large number of students. In this scenario, a senior teacher might function as the team leader and supervise a mix of licensed teachers and interns. Thus, three teachers and two interns might be responsible for instructing 100 students. Team teaching need not increase costs. Of course, more and less costly arrangements can be envisioned as the mix of senior and junior personnel and their ratio to students is varied. Though many configurations are possible, an elementary or secondary school with 100 students per grade level, or a department serving 100 students, would accommodate a team teaching arrangement.

The salaries of interns could be the current salaries of beginning teachers—or they could be somewhat lower. The determination of salary level rests on two sets of considerations.

One set concerns compensation for work performed. If an intern "carries a full teaching load," then perhaps the intern should receive full compensation. On the other hand, since the intern must be supervised, the cost of educating a classroom is increased by the cost of the intern's supervision. Who should bear the additional cost? The benefits of that supervision accrue to several parties. The intern's current students (and school district) receive the benefits of a supervised intern rather than the unsupervised teaching of a first-year teacher. The intern's future students receive the benefits of a well-trained teacher. The intern obviously receives the benefits as well.

If the intern carries less than a full teaching load, there is an argument for less than full compensation. The school district must ultimately pay for the education of all its students. If an intern has less than a full load, the school district will have to hire more teaching personnel. Less than full compensation may also be justified because the intern is receiving continuing instruction in teaching. Thus, reduced compensation can help to finance the internship program. In at least one internship program elsewhere, interns are to be hired as three-quarter-time teachers, teaching fewer hours than full-time teachers and being paid on an equivalent (75 percent) basis, with no change to the existing teacher salary schedules.

But setting compensation levels is only partly related to the worth of the intern's work and the cost of the internship. Compensation is also determined by supply and demand forces. Intern compensation does have effects on the attractiveness of teaching as a career. In periods of anticipated shortage, prudence may counsel against increasing the cost of entry to teaching.

Politically, as preparation standards for teaching increase, and as licensing standards increase, policymakers will have to balance the temptation to pass those costs to the interns against the need to ease the financial costs of entry to teaching. It may be prudent not to pass on too many costs to the prospective teacher.

A particularly important status consideration is the eligibility of interns for union membership, an issue obviously to be settled by the unions themselves. The intern's union status can make implementation of the internship program easy or problematic.

If interns are full union members, two problems arise. First, senior teachers may be reluctant to take part in the evaluation of one of their "peers." Yet senior teachers will have the most thorough and direct knowledge of the intern's performance. To exclude them from participating in the determination of whether the intern has satisfactorily completed the internship is to render that determination less effective. Second, if a full union member, the intern might be entitled to the full protection of the union in cases where it is judged that he or she has not successfully completed the internship. A union-management adversarial relationship is not conducive to vesting the internship with the integrity that will be required to establish public trust.

Thus, it would be better for the unions to create a special (less than full) membership status for interns. The precedent in the National Education Association would be the student membership. Student teachers can, at a low fee, become student members of the NEA. In this status, they receive some but not full member benefits. Another precedent is the Toledo Federation of Teachers' treatment of interns in its pathbreaking intern program established in the early 1980s (Wise et al., 1984). The union accepted interns as members, but with the special status—and evaluation process—for interns spelled out in advance in the contract. This special status was a cornerstone of the unique labor-management relationship that allowed the program to become effective.

PLANNING FOR THE INTERNSHIP PROGRAM

Key to the success of the program will be the *selection* of outstanding teachers who also have the capacity to be internship staff. The weakness of student teaching has been in part attributable to the few criteria for selecting "cooperating teachers," their lack of training, and the absence of a supportive structure. The Minnesota standards require internship programs to have *procedures* for selecting staff. The very clear implication is that not all teachers, in fact not even all outstanding teachers, are qualified to be internship staff. The standards note that the internship staff should consist of people who have actively shared their teaching expertise, exhibited sincere interest in education research and development, participated in their own education, participated regularly in professional activities, and have undergone special training.

Candidates for the internship staff will apply; no one should be required to join an internship staff. The selection process should assess the applicants according to criteria consistent with those noted in the standards. Being a member of the internship staff implies responsibilities in addition to teaching school children. It need not, however, imply a new and permanent change in *role*.

Specifically, as envisioned here, a school district need not create a "career ladder" to institute the internship program. The mentoring function need not rest on a permanent, bureaucratically defined change in role. Joining an internship staff is an activity that some senior teachers may wish to engage in for either a short or long period. However, not all senior teachers will want to leave classroom teaching, and not all will be suited to the internship function.

The spirit of the internship program is that it should be an educational experience for all participants. Early experience with internship programs suggests that mentors learn as they supervise. Each program's culture and organizational features should encourage learning by all participants. Thus, much of the "training" of the internship staff will be its own collectively designed and implemented staff development.

Until the internship concept takes root and becomes the standard, schools of education, school districts, unions, and researchers should be developing plans, courses, and options to facilitate the crucial first generation of programs. The work has already begun. Recently published is *The Mentor Teacher Casebook* (Shulman and Colbert, 1987). Interest is growing in the problems of beginning teachers (Association of Teacher Educators, 1989). A leading professional journal has devoted a special issue to teacher induction (*Journal of Teacher Education*, 1986).

But more development work is necessary. The standards for the educational program are demanding. Systematic attention should be given to numerous questions: What are alternative models for clinical supervision? Which are most appropriate for supervising interns? What are alternative approaches for reconciling formative and summative intern evaluation? What kinds of pedagogical instruction can best be provided in the internship? What kind of pedagogical preparation should be provided before the internship year? What combination of coaching and didactic instruction will best develop reflective teaching? How can observation be structured so that interns learn from what they see? What kinds of arrangements can be made between urban and rural districts to provide for diversity in the internship? What kind of instruction about teaching students of different characteristics might substitute for actually teaching students of those characteristics? Reflection on these questions will help to prepare for the internship program.

Though an internship program can be implemented in traditional schools, it is likely that it can be conducted more effectively in professional development or clinical schools. Moreover, by moving away from the self-contained classroom organization, the clinical school can operate an internship at a lower cost than a traditional school. As noted earlier, the traditional school requires that the cost of supervision be over and above the cost of instruction. Restructuring the school to permit mixes of senior and junior staff to deliver instruction to a large group of students vests responsibility for instruction with the senior staff while permitting the junior staff to deliver some of the instruction. The cost of instruction need be no higher than the cost of instruction at other schools in the district.

The location of clinical schools has been discussed elsewhere (Wise et al., 1987). There is a strong case to be made for locating them in school buildings that currently experience high faculty turnover. These buildings already function as professional development schools of a sort, though not by design and generally not well. Moreover, the students in these buildings are the students most often in need of good instruction, although they do not receive it.

School districts considering the creation of clinical schools should study teacher transfer and turnover patterns. Transfer patterns will locate the high-turnover schools. Overall turnover patterns will help the district to anticipate the numbers of new teachers to be hired and inducted.

CONCLUDING COMMENTS

A final question is when the internship should be implemented. As envisioned in this report, the internship is embedded in a licensing process. At present, the tests that will precede and follow the internship are in the early stages of development. There is no reason to defer the implementation of the internship until the tests are ready. The internship can stand alone as an improvement in teacher education. Moreover, the internship requires significant organization in the case of traditional schools, and substantial reorganization in the case of clinical schools. Thus, full implementation of internship programs will take some time. By the time the internship is operational, the tests should be ready for general administration.

One question sure to arise is whether the internship outlined here could be a substitute for (rather than an extension of) traditional teacher education. The internship is designed to improve the practical preparation of teachers. It supplements and, in some circumstances, may even supplant student teaching. Although the internship will have a substantial didactic component in which teaching theory and research will be reviewed, the time allotted to direct instruction will be too limited to convey the breadth and depth of pedagogical (much less professional) knowledge that new teachers must have. In short, the internship provides no substitute for the intellectual preparation for teaching that properly takes place in the university.

The internship represents a rearrangement of institutional roles and responsibilities for teacher education and induction. It involves the state, via its board of teaching, in teacher education in a new way. It cannot be simply mandated, as is often the case with educational innovations. To expect school districts or schools of education to absorb the costs is unrealistic. To mandate that they implement the program without new funds is to beg for superficial compliance which, in the end, will discredit the idea. And one more good educational idea will have been "proved" ineffective before it was ever really tried.

Policymakers and the public demand accountability in education. But before teachers can be held accountable, they must be thoroughly prepared for their work. And before the public can know that teachers have been prepared for their work, teacher licensing must be overhauled. The internship will provide practical preparation for the prospective teacher and evidence to the public and policymakers that the candidate merits the license to practice the profession of teaching.

Appendix A

EXAMPLES OF EVALUATION FORMS

On the following pages are some examples of forms used in different professions to verify and evaluate the on-the-job performance of interns.[1]

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[1] "IDP Sample Recordkeeping Form" used by permission of the National Council of Architectural Registration Boards; "Verification of Clinical Competence Form" used by permission of the American Board of Pediatrics.

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Sample Form
for Evaluating Psychiatric Interns

Floor/Unit ____________________
Resident/Intern ____________________
Preceptor ____________________
Dates on Floor/Unit: From: ____________

Estimated contact in hours
Please circle: <5 5-10 10-15 >15
To: ____________

THIS SIDE TO BE COMPLETED BY THE PRECEPTOR: DR. ____________________
This resident has demonstrated:

Skills		EXCELLENT	GOOD	FAIR	POOR	NOT OBSERVED
1.	Relationship with patients	4	3	2	1	X
2.	Physical diagnosis skills	4	3	2	1	X
3.	Ability to communicate	4	3	2	1	X
4.	Patient management	4	3	2	1	X
5.	Quality of written record	4	3	2	1	X
6.	Quality of patient workup	4	3	2	1	X
Knowledge						
7.	Medical knowledge	4	3	2	1	X
8.	Knowledge of own limitations	4	3	2	1	X
9.	Patient-related reading and study	4	3	2	1	X
10.	Critical evaluation of data	4	3	2	1	X
11.	Awareness of patient's psychosocial and/or family issues	4	3	2	1	X
Aptitude/Overall Performance						
12.	Reliability, dependability	4	3	2	1	X
13.	Ability to work with others	4	3	2	1	X
14.	Motivation	4	3	2	1	X
15.	General ability as a resident	4	3	2	1	X

16. Specific suggestions for improvement: ____________________

17. What aspects of this resident's performance are particularly good: ____________________

18. Other comments regarding this resident: ____________________

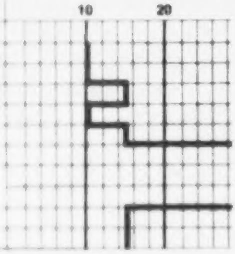
Signature of resident being evaluated: ____________________

IDP SAMPLE RECORDKEEPING FORM

(see reverse side for recording instructions)

Training Areas	Value Units Required	VU's For Period Sup Educ	VU's For Period Work Exp
A DESIGN & CONSTRUCTION			
1 PROGRAMMING & CLIENT CONTACT	10		
2 SITE & ENVIRONMENTAL ANALYSIS	10		
3 SCHEMATIC DESIGN	15		
4 BUILDING COST ANALYSIS	10		
5 CODE RESEARCH	15		
6 DESIGN DEVELOPMENT	40		
7 CONSTRUCTION DOCUMENTS	155		
8 SPECIFICATIONS & MATERIALS	15		
9 DOCUMENT CHECKING	15		
Total Minimum VU's Required Category A	**360**		
B CONSTRUCTION ADMINISTRATION			
10 BIDDING & CONTRACT NEGOTIATION	10		
11 CONSTRUCTION OFFICE	15		
12 CONSTRUCTION OBSERVATION	15		
Total Minimum VU's Required Category B	**70**		
C OFFICE MANAGEMENT			
13 OFFICE PROCEDURES	15		
14 PROFESSIONAL ACTIVITIES	10		
Total Minimum VU's Required Category C	**35**		
D RELATED ACTIVITIES			
15			
16			
17			
18			
19			
20			
No Minimum Requirement	**0**		
TOTAL VU's REQUIRED	**700 ***		

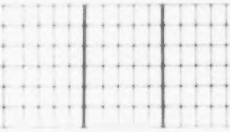
Note White areas re



The above listing of required minimums totals 28
75 VU's may be acquired in one Area or spread t

The above listing of required minimums totals 40
30 VU's may be acquired in one Area or spread t

The above listing of required minimums totals 25
10 VU's may be acquired in one Area or spread t



**The above listing of required minimums in Categories A, B, and C totals 465 VU's, allowing for 235 additional VU's to be*
Categories. For detailed descriptions of the IDP Training Categories and approved supplementary education act

Diary

Certifications

Intern-Architect

Date

Sponsor

Date

Jurisdiction(s)/D

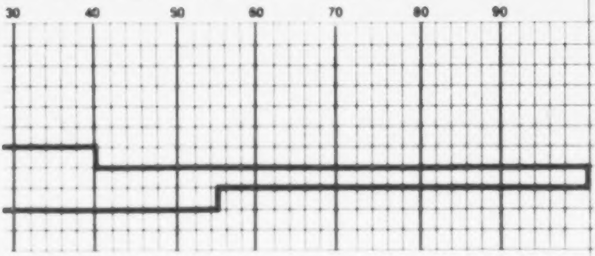
Please print or write legibly

Council Record No. ______ **Intern** ______

PERIOD: From ______ **To** ______
m / d / y   m / d / y

Total Value Units Earned

present *recommended* levels of exposure in Training Areas 1-14



Total VU's Earned To Date		
Sup. Educ.	Work Exper.	Total VU's

5 VU's allowing for 75 additional VU's to be acquired in Training Areas 1-9 All of the hroughout the Areas

VU's allowing for 30 additional VU's to be acquired in Training Areas 10-12 All of the hroughout the Areas

VU's allowing for 10 additional VU's to be acquired in Training Areas 13-14 All of the hroughout the Areas

TOTAL VU'S EARNED

acquired in any of the listed Categories All of the 235 VU's may be acquired in one Category or spread throughout the vities see **IDP Training Guidelines**

Acknowledgement

Advisor ______

Date ______

ate(s) of Arch Registration(s)

Jurisdiction(s) Date(s) of Arch Registrations

Revised 12/85

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VERIFICATION OF CLINICAL COMPETENCE FORM

NAME OF APPLICANT IDENTIFICATION NUMBER

NAME OF TRAINING PROGRAM

NAME OF TRAINING PROGRAM DIRECTOR PROGRAM CODE

Training From To Type Level Area

1. Please verify the training listed for the above named applicant by initialing here ________________
Program Director's Initials

2. The Board requires that the period of training be at least 33 months. Extended absences whether for vacation, maternity leave, illness, etc., must be made up. The Board must approve any variation in this requirement.

The following assessment is based on: _____ my own observation _____ faculty reports _____ evaluation committee reports
_____ other. Specify ________________________________

Sign Statement A if you recommend the above named applicant for examination. Please have your signature notarized.

A. I certify that the above named applicant has demonstrated the necessary attitudes, knowledge, clinical judgment, technical skills and interpersonal skills and is judged to be fully prepared for independent responsibility as a general pediatrician; to my knowledge, he/she has moral and ethical integrity. The applicant is recommended for examination.

Signature of Program Director

Notary Public

Sign Statement B1 or B2, or both, if you do NOT recommend the above named applicant for examination at this time.

B1. I certify that the above named applicant has NOT satisfactorily demonstrated one or more of the necessary attitudes, knowledge, clinical judgement, technical skills or interpersonal skills and is NOT judged to be fully prepared for independent responsibility as a general pediatrician. The applicant is NOT recommended for examination at this time.

Signature of Program Director

B2. I certify that in my opinion the above named applicant lacks moral and ethical integrity and is NOT recommended for examination at this time.

Signature of Program Director

If Statement B1 and/or B2 has been signed, please supply further details of the applicant's deficiencies and documentation of the reasons the applicant was not recommended. This documentation should include copies of the evaluations submitted by the faculty at the end of a rotation, copies of the periodic evaluations by the Residency Evaluation Committee (or its equivalent) and written evidence that the applicant was counseled regarding his/her performance.

Please provide any other information about the applicant that you think the Board should know. If the applicant has dyslexia or any other serious physical handicap which might present difficulties in taking the examination, please submit documentation with this form. (Please print or type using additional sheets if necessary.)

IMPORTANT: SEE REVERSE SIDE

Eight components of competence have been identified below. For each component, circle the number that best describes the applicant in relation to the characteristics listed at the extremes of each scale.

Underline or check specific points, if any, that cause problems.

1. *Gathering Data By History*

1 2 3 4 5 6 7 8 9

— Follows format of traditional clerkship rigidly — Directs interviews toward pre-conceived impressions — Fails to include social, family and developmental history routinely — Accepts facts as received — Keeps disorganized, unreliable records. Disregards patient's view of the illness.

— Defines roles and purposes clearly — Uses open-ended questions — Adapts vocabulary to socio-cultural and educational status of historian — Recognizes and responds to nonverbal and attitudinal cues — Develops history along clinically relevant lines, identifies pertinent data — Determines patient's view of illness.

2. *Gathering Data by Physical Examination*

1 2 3 4 5 6 7 8 9

— Alarms patients by clumsy or abrupt approach — Shows little concern for patient's comfort or right of privacy — Performs careless or incomplete examination — Fails to verify findings. Does not relate physical findings to pathophysiology.

— Shows judgment as to the appropriate attention to a given area of manipulation — Interprets physical findings accurately — Repeats examination when findings are equivocal or obscure — Respects patient's right of privacy.

3. *Gathering Data by Laboratory Studies (include Radiographic)*

1 2 3 4 5 6 7 8 9

— Uses laboratory indiscriminately — Is inconsiderate of patient's comfort in selecting lab studies — Is unaware of the influence of timing and sequence on lab studies — Fails to interpret lab results correctly — Technically clumsy.

— Selects invasive methods only when essential — Considers cost in selecting lab studies — Interprets lab results correctly — Performs technical diagnostic procedures skillfully.

4. *Assessing Data and Arriving at a Diagnosis*

1 2 3 4 5 6 7 8 9

— Ignores part of data in formulating a diagnosis — Avoids reaching a conclusion despite a reasonable data base — States problem in incorrect or confusing terminology.

— Formulates sound diagnostic hypotheses — Is specific in problem definition.

5. *Managing Problems and Maintaining Health*

1 2 3 4 5 6 7 8 9

— Performs technical therapeutic procedures poorly — Is slow to recognize emergency situations — Persists in original course despite indications to change — Rejects or ignores importance of patient education — Ignores psychosocial aspects of patient care.

— Performs technical therapeutic procedures skillfully — Is effective and efficient in choosing course of management — Keeps assessment of patient and management plan current — Uses anticipatory guidance appropriately — Is prompt to respond to emergencies.

6 *Interpersonal Relationships With Patients and Families*

1 2 3 4 5 6 7 8 9

Behaves in authoritarian manner. Inappropriately obtains informed consent. Demonstrates inappropriate responses to patient illnesses and families — Lack of communication skills interferes with ability to care for patients. Unduly alarms with explanation of diagnosis — Does not have knowledge of or utilize social sciences or humanities in day to day interaction with patients.

Is aware of reasons for informed consent and obtains consent appropriately. Critically reflects on own and others' approaches — Demonstrates a caring attitude toward patients and families — Explains working diagnosis and management effectively — Understands the rights of patients — Excellent communication skills. Has some knowledge of the social sciences and humanities which is utilized in day to day interactions with patients.

7 *Interpersonal Relationships With Other Members of the Health Team*

1 2 3 4 5 6 7 8 9

Does not request assistance when needed — Fails to recognize professional skills of others — Is unable to give or take advice gracefully. Cannot communicate medical problems to others.

Utilizes contributions of others in total patient care — Supervises effectively — Teaches effectively — Effectively communicates patients' problems to others.

8 *Work Habits and Personal Qualities*

1 2 3 4 5 6 7 8 9

Does not accept responsibility — Is unaware of own limits, denies mistakes — Demonstrates personal dishonesty — Is unable to cope with personal or professional problems — Fails to preserve confidentiality of medical information — Lacks commitment to patients.

Demonstrates personal honesty — Seeks to update knowledge in the interest of current patients' problems — Demonstrates appropriate initiative, energy, commitment — Is able to make decisions promptly and appropriately when reasonable risk of uncertainty or error must be accepted.

*IMPORTANT: **Please complete the OVERALL CLINICAL COMPETENCE rating below. The Credentials Committee will review individually all Overall Clinical Competence ratings of 1, 2, 3, and 4.**

Circle the one number that best describes the applicant in terms of his/her ability to care for children independently in the average practice situation in the U.S. or Canada, taking into account the components of competence above, as well as your estimate of the applicant's grasp of pediatric knowledge. In these phrases "manage" is defined as identifying the nature of the problem, determining methods of resolving or alleviating the problem, and carrying out management plans — including the appropriate and timely use of consultants.

1 — Unable to manage many pediatric problems including the most routine ones.
2
3 — Able to manage only the most routine problems in pediatrics.
4
5 — Able to manage the common problems of pediatrics adequately.
6
7 — Able to manage most pediatric problems in an effective way.
8
9 — Able to manage almost any pediatric problem in a highly effective manner.

Appendix B

EXTRACT FROM *MINNESOTA'S VISION FOR TEACHER EDUCATION*

The report of the Task Force on Teacher Education for Minnesota's Future, *Minnesota's Vision for Teacher Education: Stronger Standards, New Partnerships*, was published in 1986 by the state's Board of Teaching and its Higher Education Coordinating Board. Its purpose was to identify a set of dispositions, skills, and knowledge as the perferred outcomes of teacher education programs. The following excerpt sets forth those recommended outcomes.

CHAPTER V. RECOMMENDED PROGRAM OUTCOMES OF FUTURE TEACHER EDUCATION: DISPOSITIONS, SKILLS, KNOWLEDGE

Historically, teacher education has been described and evaluated by resource criteria such as the number of courses in pedagogy or philosophy of education, and the number of faculty and their degrees. Unfortunately, describing or measuring program resources provides no information about the results or consequences of the program for students, nor does it describe how the program is implemented. Defining, describing, and evaluating the results, or outcomes, of a program make it possible to judge whether the program produces teachers who effectively facilitate learning for students. Defining, describing, and evaluating the methods and procedures used also make judgments possible about the process of delivering teacher education. Current evidence suggests that teacher education should be characterized by program outcomes and process as well as input (Taylor, 1979).

Based on the task force review of the most recent knowledge of effective learning and teaching, this chapter defines and describes a minimum set of standards for the outcomes and the processes of teacher education. The first section provides the dispositions, skills, and knowledge that graduates of teacher education programs should demonstrate. Necessary elements of delivery systems for implementing recommended programs are identified to conclude the chapter.

Introduction

Teachers should be thoughtful, creative persons who use a set of principles and strategies derived from an informed personal philosophy of education and the multiple demands of learning contexts. The descriptions of future learners and teachers create a picture of education which focuses on developing learners' minds so that they can use available and changing knowledge in a variety of learning contexts.

These concepts of learners and teachers have been too infrequently realized both within schools and teacher preparation programs. Additionally, teacher education programs seldom use an ideally defined concept of a teacher as the basis for developing coherent, integrated curriculum and structure (Howey, 1986).

Several barriers to developing and implementing programs based on these concepts exist. In part, education has historically endorsed a "learn the facts and do the job" approach. This perspective permeates teaching at all levels (Nolan, 1985).

Too, educators within colleges and schools have used limited interactive instructional strategies (Cross and Beidler, 1986). For the most part, college and classroom learning behavior exemplifies the passive learner phenomenon (Katz and Raths, 1982). These obstacles affect decisions about *what* prospective teachers should learn and *how* they should learn.

Expected dispositions of beginning teachers must stem from the concept of an ideal teacher. The identified dispositions determine the range of skills needed by beginning teachers. Finally, the knowledge necessary for building the skills is defined. All are necessary to teaching regardless of grade level or subject area.

Dispositions

The goals of teacher education programs should include not only the acquisition of skills and knowledge, but also the promotion of certain dispositions. Effective teachers are intentionally disposed to act in particular ways that best facilitate learning and can explain their patterns of behavior (Green, 1964). The frequency of particular actions within specified categories or circumstances determines the particular disposition (Katz and Raths, 1985). The task force recommends that teacher education programs should be redesigned to foster the following dispositions in beginning teachers:

Dispositions Toward Self

Teachers will be disposed to:

- Understand their strengths, needs, values, and beliefs.
- Reflect on their own teaching and its effects on learners.
- Develop a personal philosophy of education.
- Appreciate the responsibility of serving as a positive model for students.
- Share decision making with learners and colleagues.
- Accept change, ambiguity, and uncertainty.

Dispositions Toward the Learner

Teachers will be disposed to:

- Support positive learner self-concept by fostering learner success.
- Acknowledge and use the relationship between expectations and performance by learners.
- Recognize and use learner readiness and motivation.
- Respect and value individual and cultural differences.
- Establish empathic, cooperative relationships with with and among learners.
- Assist learners in clarifying beliefs, attitudes, and values.
- Promote the fullest possible growth and development of all students.

Dispositions Toward Teaching

Teachers will be disposed to:

- Engage with learners in joint exploration of ideas and structures of knowledge.
- Use a variety of teaching strategies supported by research.
- Engage in critical and divergent thinking and problem solving with learners.
- Demonstrate global perspectives with a sense of responsibility for involvement.

Dispositions Toward the Profession

Teachers will be disposed to:

- Act as part of a team which is informed and involved in the broader educational environment.
- Engage in professional responsibilities within the building, the district, professional organizations, and the community.
- Inform themselves of current professional literature.

Skills

Effective teaching is more than the transmission of basic skills; it is the ability to release people to learn how to learn (Green, 1983). Teachers make multiple and continuous decisions in guiding effective, formal learning. Therefore, future teachers must acquire complex and elaborate teaching strategies. Teachers must have the skills to create environments that provoke students to ask questions and seek answers on their own. The specific skills listed are representative and not exhaustive. They are, however, essential to effective teaching. The task force recommends that teacher education programs should be redesigned to assure that beginning teachers possess and can demonstrate the following learning and teaching skills:

Intellectual Skills

Teachers serve as models to students. Therefore, they must:

- Be articulate, creative and precise in the regular use of speaking, listening, reading, writing, and mathematics.
- Be disciplined in the use of analytical, critical, and problem solving strategies.

Assessment Skills

Successful learning depends upon teachers' knowledge of the students. Teachers must be able to analyze and interpret both objective and subjective information about students' learning characteristics, attitudes, and backgrounds. Teachers must understand and respond to each student individually and personally. Therefore, teachers must:

- Be systematic in observing and interpreting learner behavior and dynamics which cause the behavior.
- Identify levels of readiness in student learning and development.

- Identify student learning style, strengths, and needs.
- Identify levels and sources of learner motivation.
- Identify relevant aspects of learner background and experience.

Planning Skills

A significant part of effective teaching consists of making judgments and decisions about what students have learned, should learn, and are learning (Clark, 1983). Teacher planning contributes to the content and quality of instruction (Smith and Sendelbach, 1979; Clark and Elmore, 1981). Additionally, planning influences the opportunity to learn, the instructional grouping, and overall focus of the learning environment processes (Clark, 1983). Planning shapes the broad outline of what is possible and is used to manage transitions by integrating information from one activity to another. Teachers must:

- Define the purpose and goals of learning activities based on designed curriculum, learner assessment, and knowledge of learning effectiveness research.
- Translate goals into integrated curricular objectives, relevant activities, and evaluation procedures based on learner need.
- Select learning objectives for individual and group learning.
- Establish learning priorities, develop learning plans and prescriptions for learning based on learner strengths and needs.
- Select learning materials, activities, and strategies to achieve learning objectives for each learner.
- Plan the course of activities for immediate, short-term and long-term goals.
- Plan and design evaluation tools and strategies for assessing learner outcomes.

Instructional Skills

Instruction involves the application of intentional acts aimed at promoting the learning of skills, knowledge, and values (Hyman, 1974). Achieving that goal requires balancing learning objectives, student characteristics, teaching strategies, and curriculum objectives. The teacher is responsible for blending these aspects of teaching through careful judgment and decision making (Clark and Joyce, 1981). The decisions teachers make affect their behavior and the behavior of their students in both the long and short term. Instructional skills allow teachers to make effective decisions. Teachers must:

- Use multiple learning and teaching strategies.
- Provide clear, individually appropriate learning expectations.
- Expect and maintain active, successful learner participation.
- Expect and support self-directed learning.
- Listen, reflect, and probe for learner understanding and ask for clarification.
- Support, critique, and expand learner expression in speaking and writing.
- Explore academic information as well as personal feelings and relationships through discussion.

- Foster critical and divergent thinking and problem solving among learners.
- Guide cooperative learning, independent study, and field study among learners.
- Use state of the art communication technology and information systems.

Evaluation Skills

Teaching and learning are reciprocal by nature; teaching influences learning and learning affects teaching. Therefore, evaluation must account for this interaction. Some forms of evaluation should be ongoing, and other forms should be periodic.

Teachers must:

- Monitor and evaluate student learning through a variety of methods.
- Monitor and evaluate their own behavior in relation to changes in achievement.
- Modify learning objectives, plans, and instructional behavior based on evaluation results.

Social Behavior Management Skills

Environments that are conducive to productive learning and promote active learner participation require the instructional strategies outlined above. Additionally, teachers need specific skills to manage the social behavior of the learners and themselves.

Teachers should:

- Provide clear and appropriate behavioral expectations and establish corresponding rules and routines.
- Diagnose and identify causes of antisocial, counter-productive, or nonproductive behaviors in the learning environment.
- Recognize and respond to opportunities for fostering learner self-discipline.
- Employ tested behavior modification and behavioral analysis principles for producing desirable behavior.
- Employ strategies to alter the social-emotional climate of the learning environment in collaborative, individualistic, or cooperative structures.
- Alter physical and environmental aspects of the learning environment to promote desired social development.

Role Modeling Skills

Through their own behavior, teachers should demonstrate:

- Courtesy and respect for others.
- Enthusiasm for learning.
- Self-discipline and control.
- Consistency between intention and action.

Knowledge

Teaching has been described as "...an art informed by science" (Gage, 1985). Thus, the education of teachers should reflect the combination of liberal education and the science of learning and teaching.

Liberal arts education is concerned with comprehensive development of the mind in acquiring knowledge. The aim is to achieve knowledge and understanding of experience in many different ways. Prospective teachers must acquire not only information, but also knowledge of complex conceptual schemes, of the arts, and of different types of reasoning and judgment (Hist, 1972). Liberal arts studies introduce the relationships among basic bodies of knowledge and the range of knowledge as a whole. The aim of liberal education must be kept in mind in the selection of disciplines studied in the liberal arts curriculum. The task force recommends that teacher education programs should be redesigned to include the following bodies of knowledge:

Knowledge About People

Future teachers must understand how social organizations function and influence people and how people influence organizations. They must comprehend the challenges and the opportunities facing people in culturally diverse societies and understand how to work with people in complex social settings. They must have knowledge which allows them to make informed judgments about issues in professional ethics. This body of knowledge should include the social and behavioral sciences, the natural sciences, the humanities, and philosophic values and belief systems.

Knowledge About Cultures

Future teachers must understand the origins and the development of western and non-western civilizations and cultures. They must understand past and present ideas and debates in the sciences and humanities. They must learn to examine issues, trends, and forecasts that may affect future thinking, behavior, and institutions. This body of knowledge should include not only social, literary, and linguistic knowledge, but also the political, religious, historical, scientific, and technological evidence that defines cultures.

Knowledge About Epistemology

Prospective teachers must gain an appreciation of differing viewpoints and theories within disciplines and of associated methods of inquiry. They must learn to evaluate explanations advanced to account for phenomena. From this experience, future teachers must understand how knowledge persistently changes and evolves over time. In liberal education, pursuit of knowledge must be complemented with learning the various "ways of knowing.

Knowledge in a Specific Discipline

Prospective teachers should understand the scope, structure, and relationship of a body of knowledge to the world. Future teachers must develop a sense of personal scholarship through in-depth study in one or more core liberal arts disciplines. They must identify sufficiently with scholars in the area(s) of concentration so that they appreciate and respond to the changing nature of knowledge. Such academic concentration must provide future teachers with knowledge that will apply in future learning and teaching environments.

Knowledge About Human Growth and Development

Future teachers must learn how the acquisition of knowledge relates to development of an individual's learning, thinking, feeling, and believing. Teachers must understand their own levels of development, learning style and motivational habits. They must acquire this knowledge as the basis for diagnostic and prescriptive teaching that will allow them to respond to learners' individual styles, strengths, and needs. They must learn to translate theory into practical learning application and to translate practice into theory. The knowledge should include information about human learning derived from current and emerging developmental theories of the mind, body, and emotions, within and across cultures in the following areas:

- Affective/social, cognitive, moral, and physical development,
- Motivational development, and
- Individual learning styles and modes.

Knowledge About Communication and Language

Future teachers must appreciate and understand the complexities of human communication. This knowledge allows them to determine how various communication strategies and styles cause learning in a variety of contexts. The knowledge provides prospective teachers with the basis for making decisions about their own and their students' communication and language. The knowledge should include theoretical and developmental information about:

- Nonverbal communication,
- Oral language and communication (listening and speaking),
- Written language and communication (reading and writing), and
- Technological language and communication.

Knowledge of Scientific Inquiry

Future teachers must learn methods of scientific inquiry that will provide them with a variety of problem solving strategies for addressing the difficulties and complexities of students' learning. They must learn to understand and value critical thinking and self-directed learning as intellectual habits of mind. They must learn scientific methodology and use it systematically to identify problems and create effective learning environments. Methods to be learned include:

- Descriptive procedures, and
- Experimental procedures.

Knowledge of Literature on Effective Learning and Teaching
Informed by the literature, teachers will learn to articulate and explain their own and their students' learning behavior. They must learn to interpret and apply research findings. Knowledge of the literature on effective learning and teaching should include:

- Learning,
- Curriculum and resources,
- Pedagogy,
- Technology, and
- Organizational development.

Program Delivery

To achieve desired outcomes, programs should include regular and systematic experiential activities that relate to the acquisition of dispositions, skills, and knowledge.

From the beginning of the teacher education program, future teachers must engage in regular and systematic observation, reflection, and feedback using a variety of methods; these might include videotape analysis of their behavior by themselves, their peers, faculty, and cooperating teachers. The observation should be integrated with experiences in human growth and development and communication.

Throughout the teacher education program, future teachers must observe and interpret human behavior in clinical and field settings. They must observe and work with small and large groups of learners in a wide range of real or simulated settings. In field settings, to support student growth, teacher education students and their supporting resources should be clustered within a limited number of cooperating schools.

Throughout the teacher education program, future teachers must have regular and systematic practice and use of communication technology and data-based information systems.

From the beginning, future teachers must routinely integrate scientific methods of analysis and problem solving in all field experiences and practices.

Part of the program delivery system should be a formal, structured induction period following graduation. During this time, employed beginning teachers would be required to demonstrate increased levels of the dispositions, skills, and knowledge attained in the preparation program.

Summary

After completing teacher education programs, beginning teachers should have attained the recommended dispositions, skills, and knowledge sufficiently well to teach effectively in a variety of learning environments. The task force also recommends a program delivery system to ensure that teacher education students acquire and demonstrate the recommended outcomes as they progress through the program. The outcomes and the system of program delivery should be used by teacher educators to guide curriculum redesign and implementation.

Appendix C

CODE OF ETHICS FOR MINNESOTA TEACHERS

Below we present an excerpt from the *Code of Ethics for Minnesota Teachers*, published by the state's Board of Teaching.

Chapter Nine: Code of Ethics[1]

§ 3.130 Code of ethics for Minnesota teachers

A. Each teacher upon entering the teaching profession, assumes a number of obligations, one of which is to adhere to a set of principles which defines professional conduct. These principles are reflected in the following code of ethics, which sets forth to the education profession and the public it serves standards of professional conduct and procedures for implementation.

This code shall apply to all persons licensed according to rules established by the Minnesota board of teaching.

B. Standards of professional conduct.

1. A teacher shall provide professional educational services in a non-discriminatory manner.
2. A teacher shall make reasonable effort to protect the student from conditions harmful to health and safety.
3. In accordance with state and federal laws, a teacher shall disclose confidential information about individuals only when a compelling professional purpose is served or when required by law.
4. A teacher shall take reasonable disciplinary action in exercising the authority to provide an atmosphere conducive to learning.
5. A teacher shall not use professional relationships with students, parents, and colleagues to private advantage.
6. A teacher shall delegate authority for teaching responsibilities only to licensed personnel.

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[1] From *Code of Ethics for Minnesota Teachers*, Minnesota Board of Teaching, St. Paul, 1978.

7. A teacher shall not deliberatly suppress or distort subject matter.
8. A teacher shall not knowingly falsify or misrepresent records or facts relating to that teacher's own qualifications or to other teachers' qualifications.
9. A teacher shall not knowingly make false or malicious statements about students or colleagues.
10. A teacher shall accept a contract for a teaching position that requires licensing only if properly or provisionally licensed for that position.

Appendix D

DETAILED DESCRIPTIONS OF INTERNSHIPS IN FOUR LICENSED PROFESSIONS

On the following pages are four detailed descriptions of the internship requirements in four professions—engineering, psychology, architecture, and medicine—along with background information about the context in which these internships abide. It is hoped that these descriptions will offer insights for those considering establishing a similar requirement for entry into teaching.

Each section has its own list of references.

ENGINEERING

CONTEXT FOR THE ENGINEERING LICENSURE PROCESS

Governance of Licensure

The field of engineering has two tiers of practitioners: professional engineers (PEs), who are licensed by the state in which they practice, and others who perform engineering work but are not licensed. Only licensed PEs are permitted to advertise as engineers, and most documents and plans must be signed by a PE to be legally recognized. As a result, most nonlicensed engineers work in firms headed by one or more PEs who bear full responsibility for their employees' work.

All licensure is done by individual states, although some interstate reciprocity exists. In some states, licensure is not required for five "exempt" classes of engineers who: work for the U.S. government; work in a manufacturing corporation; work for a public utility; work under the supervision of registered engineers; or build or design structures for their personal use (Sunar, 1985, 8; Florida Statutes, 1987, 471.003).

Over the years, requirements for engineering licensure have become both more stringent and more standardized. Many states that permitted the substitution of experience for formal education are closing this loophole (Smith, 1988), and the standardized examinations offered by the National Council of Engineering Examiners (NCEE) are now universally required, although cut-off scores vary significantly among jurisdictions (Herndon, 1988).

Still, licensure of practicing engineers is far from universal. Of the approximately 1.4 million practicing engineers in the United States, some 500,000 are registered under state registration laws (*Registration Now!*, 1987, 2). Although the absolute number of registered engineers has risen steadily over the past 50 years (Sunar, 1985, 10), the ratio of Fundamentals of Engineering (FE) exams administered (the first step in the registration process) to bachelor's degrees awarded in engineering has declined slightly in the last 15 years, from just over 0.6 in the mid-1970s to 0.56 in the late 1980s) (NCEE, 1988). Since a significant number of engineers choose to become licensed later in their careers, these data are not conclusive, but do seem to indicate that without significant changes in state regulations, engineering is unlikely to become a profession in which more than half of its practitioners are licensed.

Professional Attitudes Towards Licensure

Engineering has not managed to make licensure routine, as law and medicine have. This is evident from the tone of both official and unofficial publications within the profession, all of which spend time defending registration before they begin describing it. The National Society of Professional Engineers (NSPE), for instance, publishes a pamphlet entitled *Registration Now!* that informs practicing engineers about the registration process. The pamphlet is written to persuade unlicensed engineers to become registered:

> You've reached a point in your career when your education, training, and experience make you a valued part of your employer's team. Those around you respect your talents, your capabilities, and your skills. Still, you want something more in your professional career. It's time to take your place in the mainstream of your profession, to be in contact with the highest caliber of engineering professionals, to . . .

The pamphlet goes on to enumerate the rewards of becoming a professional engineer, pointing out that "engineering registration is a prestigious step in professional growth and development." It cites several reasons for becoming registered, including providing the profession with a firmer sense of direction, promoting public awareness of the types of work engineers perform, and placing engineering on an equal footing with other recognized professions (*Registration Now!*, 1987).

NCEE's *Why Become a PE?* adopts a similar tone: "There are many tangible benefits to becoming a PE," it explains, and goes on to enumerate advantages similar to those in the NSPE pamphlet (*Why Become a PE?*, n.d.). Even *How to Become a Professional Engineer*, a self-help book published by a self-appointed engineering publication group, takes on an exhortative tone. "The first question you may ask about registration is, 'Why should I register?' Particularly if you are a recent graduate of a rigorous engineering curriculum, you may feel that your degree speaks for itself and that further testing and certification are superfluous. However, the issue is a good deal more complex than that" (Sunar, 1985, 1). It is difficult to imagine a "How to Prepare for the Bar Exam" book with a similar introduction.

THE PROFESSIONAL ENGINEERING LICENSURE PROCESS

Common Features

Becoming licensed as a professional engineer in most states is a four-part process. One must first graduate from a four-year engineering program that includes courses in basic mathematics, engineering sciences, and engineering design; a student whose program is not accredited by the Accreditation Board for Engineering Technology or the Canadian Engineering Accreditation Board may be required to undergo additional training. The candidate must next pass the FE examination, an eight-hour multiple-choice test of basic engineering knowledge, including engineering mechanics, mathematics, electrical circuits, and engineering economics.

Having demonstrated through the FE examination at least a minimal level of competence in the knowledge tested, the candidate is designated an engineer-in-training (EIT). In order to advance beyond this level, the prospective professional engineer is required to practice for four years in a setting that allows a progressive assumption of responsibility. No further requirements are imposed on the internship by any central regulating board; more than in any of the other professions, the internship is simply the first years of working. After four years, the candidate is eligible to sit for the Principles and Practice of Engineering (PE) examination, an eight-hour essay test that requires the candidate to solve actual problems in six of fourteen areas of engineering. A candidate who receives a passing score of 48 out of 80 on the PE examination and submits evidence of completion of all other prerequisites is eligible for registration as a professional engineer (*Why Become a PE?*, n.d., 4–8).

In summary, then, to be licensed as a professional engineer a candidate must first have:

- A degree in engineering (generally from an accredited program; if not, compensatory work must be done).
- A passing score on the FE examination.

The candidate is then at the EIT level. To complete the process of becoming a professional engineer, he or she must additionally have:

- Four years of experience.
- A passing score on the PE examination.

Interstate Variations

Registration is done on a state-by-state basis, and requirements vary considerably. Some states, for instance, still permit the substitution of four (or more) years of experience for the four years of education; others require those with a degree from an accredited program to take only part of the FE exam (*Summary of the Requirements*, 1988). Some states require engineers to declare and be licensed in a subspecialty, such as chemical or electrical engineering; others have only generic licensure.

Efforts at Standardization

A certain degree of uniformity is provided by the standardized national examinations, the FE and the PE, administered by the NCEE, a consortium of the 54 state and jurisdiction boards of engineering registration. In addition to the two exams, which have been required in all states since 1984, the NCEE offers a program of national certification, which aids engineers seeking registration in more than one state by attesting to the standard they have attained.

THE ENGINEERING INTERNSHIP

General Features

There is little, if any, standardization of the engineering "internship." *How to Become a Professional Engineer* suggests that the state board will be more likely to accept experience if it was supervised, of high quality, broad in scope, and progressively responsible (Sunar, 1985, 25), but there is little evidence that the states actually look for more than the appropriate amount of time spent in a supervised setting doing engineering work. Florida, which has been commended by the NCEE for its licensure practices, requires only that the four years "must principally involve activities in the field of engineering" and "shall include at least one year of engineering design experience" (Florida Statutes, 1987, 21H-20.002[1]). The work must also be under the direct supervision of PEs or practicing engineers, who will be asked to verify its quality and character (Florida Statutes, 1987, 21H-20.002[2]).

Two Models for Evaluation

Two basic models exist for evaluation of the internship experience. In the first, a small board of professional engineers evaluates a detailed list and description of activities submitted by the applicant and thereby determines whether the experience has been acceptable. New Hampshire exemplifies this model, requiring aspiring PEs to provide a "Supplementary Experience Record in Detail." The form asks the applicant to "in chronological order, starting with your first engineering engagement, list and identify your engineering projects and/or assignments. Be specific in identifying the portion of work you personally engineered, note the calculations you performed, identify the project by job title, name of client, location of project, total cost and cost of the portion you engineered . . . list such things as capacities, sizes, ratings, list of equipment sized and/or specified, or other suitable identifying means, note success or failure of each project" (State of New Hampshire Joint Board, 1988). The applications are then reviewed by one of the four PEs who serve on the five-member review board (the fifth member is a layperson). The reviewer works from a checklist to ascertain that the applicant has had sufficient experience in engineering to ensure that he or she could practice independently. The applicant is also required to provide a list of five references, who may be called upon to verify the applicant's experience, but the burden of the evaluation falls mainly on the board.

In the second model, responsibility for evaluating the candidate's experience falls on the practitioners with whom he or she has professional contact. Florida, for instance, requires the applicant to list professional experiences in detail (State of Florida Department of Professional Regulation, 1988), but relies by law on notarized employer verification forms to document the EIT's activities (Florida Statutes, 1987, 21H-20.002[2]). The employers are asked to complete forms verifying that the applicant:

1. Is or was employed with this company from ____ to ____.
2. During his/her employment worked with me/for me for ____ years.
3. Has been engaged in engineering for ____ years.
4. Has been in responsible charge of engineering for ____ years.

In addition, each employer has four lines to "comment on the applicant's experience, ability and competency to do engineering work as indicated in questions 3 and 4" (Florida Board of Professional Engineers, 1987). The applicant is required to submit five additional personal references from practicing engineers, at least two of whom must be PEs, attesting to the applicant's "experience, ability and competency to do engineering work" (Florida Board of Professional Engineers, 1987). A subcommittee of three of the nine-member (seven engineers, two laypeople) professional board then reviews these affidavits and determines whether the candidate will be permitted to sit for the PE examination.

REFERENCES FOR ENGINEERING

Florida Board of Professional Engineers, "Notarized Employer Verification Form," State of Florida Department of Professional Regulation, Tallahassee, Florida, 1987.

Florida Statutes, 1987.

Herndon, J. Earl, Director of Examinations, National Council of Engineering Examiners, telephone conversation, 22 September 1988.

National Council of Engineering Examiners (NCEE), figures provided through private correspondence, October 1988.

Registration Now!: A Guide to Engineering Professionalism, National Society of Professional Engineers, Washington, D.C., 1987.

Sargent, Sue Ann, Executive Secretary, New Hampshire State Board of Professional Engineers, telephone conversation, 21 October 1988.

Smith, Allen R. Jr., Executive Director, Florida Board of Professional Engineers, telephone interview, 21 October 1988.

State of Florida Department of Professional Regulation, 1988 "Application for Registration as a Professional Engineer," Tallahassee, Florida, 1988.

State of New Hampshire Joint Board of Engineers, Architects and Land Surveyors, 1988. "Application for Licensure as a Professional Engineer," Concord, New Hampshire, 1988.

Summary of the Requirements for Engineering Registration: State by State, (rev.), Washington, D.C., 1988.

Sunar, D. G., *How to Become A Professional Engineer*, Professional Publications, San Carlos, California, 1985.

Why Become A PE? The NCEE Guide to Registration, National Council of Engineering Examiners, Clemson, South Carolina, n.d.

PSYCHOLOGY

CONTEXT FOR THE PSYCHOLOGY LICENSURE PROCESS

Governance of Licensure

Psychology differs from engineering in that all recognized practitioners must be licensed, but like engineering, the profession has two tiers: in this case those who are licensed and those who are licensed and also registered. Licensure is done on a state-by-state basis, and all psychologists who offer direct services to the public for a fee must be licensed by their state board in order to practice as psychologists (AASPB, 1). Registration is governed by the Council for the National Register of Health Service Providers in Psychology (CNRHSPP), an independent agency that produces a directory of qualified psychologists who elect to be included; 15,500 out of 44,580 doctoral-level psychologists are listed in the agency's register (CNRHSPP, 1988; Wichenski, 1988). There are no "exempt" classes of psychologists, but many licensed and nonlicensed practitioners—psychiatrists, psychiatric nurses, social workers, guidance counselors, and various sorts of therapists—offer similar services to the public. In addition, some states also recognize paraprofessional psychologists as psychological assistants, associates, or examiners (APA, 1988).

Licensure requirements vary considerably across state lines, but as with engineering, are becoming more stringent. Most states now require candidates to have a doctoral degree and one to two years of clinical experience. A standardized examination, the Examination for Professional Practice in Psychology (EPPP), is employed by all states, and 28 states require an oral examination as well (APA, 1988).

Professional Attitudes Towards Licensure

Since licensure is required by law in all states, there is no need to persuade psychologists to pursue it. Publications such as *Careers in Psychology*, aimed at the "thousands of students [who] write the APA each year asking how to become a psychologist" discuss the many areas in which psychologists practice—research, counseling, industry, law—without highlighting any. In fact, the book points out that master's, bachelor's or even associate degrees in psychology offer opportunities for practice (APA,1986a). The APA's *Psychology as a Health Care Profession* spends several pages highlighting how rigorous the requirements are for licensure as a practicing psychologist: "No other mental health care profession requires its practitioners to have as high a degree of education and training specifically in the mental and emotional processes as does the profession of psychology" (APA, 1986b, 9); but it in no way tries to cajole the recalcitrant into becoming registered. Even the CNRHSPP, the voluntary registration organization, believes that its "product" advertises itself through the benefits of registry: namely, it confers a gain in status and it facilitates approval of third-party payments (CNRHSPP, 1988).

THE PSYCHOLOGY LICENSURE PROCESS

Common Features

Becoming licensed as a professional psychologist in most states is a three-part process. A candidate must first graduate from a doctoral program in psychology; programs approved by the American Psychological Association (APA) require, in addition to appropriate coursework, that the candidate participate in a 400-hour predissertation practicum experience and a full-time one-year postdissertation internship. The candidate must then practice for one or two years under supervision. In some states this requirement may be met with the predoctoral internship; in others, the experience must be postdoctoral. As with doctoral programs, the APA accredits internships that meet standards for administration, staff, interns, and program. Since credit for APA-accredited internships is given by the candidate's doctoral-granting institution, psychology internships tend to be fairly structured and to include didactic training alongside clinical experience.

The final step in the psychology licensure process involves passing the EPPP, a 200-item multiple-choice examination that addresses the candidate's mastery of six major areas in psychology, ranging from interpreting and reporting results of assessment to designing and implementing research; cut-off scores are established by the individual states, and range from 55 percent to 75 percent. In most states, additional state-developed oral or essay examinations are also required. A candidate who receives a passing score on the EPPP, submits evidence of completion of all other prerequisites, and provides confirmation of good moral character is eligible for licensure as a professional clinical psychologist (AASPB, n.d.).

Thus, for licensure in most states a candidate must have:

- A doctoral degree in psychology from an approved program or the equivalent. "Approved" often, but not always, means APA-accredited. Accredited doctoral programs in clinical psychology require both practicum experience and a one-year internship as part of the curriculum.

- One or two years of supervised experience in a state board-approved setting. Some, but by no means all, jurisdictions require that a certain amount of this supervised experience be postdoctoral.
- A passing score on a written examination, most often the EPPP.
- Certain administrative requirements, such as age, citizenship, residence, evidence of character, etc.

Interstate Variations

Variations on this schema include two or three states that require only a master's degree for licensure, as well as a number of states that require ethics or other written examinations in addition to the EPPP. Twenty-eight states also require an oral examination of clinical skills (APA, 1988). For registry in the National Register of Health Service Providers in Psychology, the candidate must have completed a one-year internship as a trainee, and an additional year of postdoctoral supervised work; this requirement often supersedes the state regulation.

Efforts at Standardization

Interstate uniformity comes from APA accreditation of educational programs and internships, CNRHSPP requirements, and the EPPP. Listing in the NRHSPP simplifies interstate transfer of licenses, but it still does not overcome the gap between states with oral examinations and those without.

Standardization of the internship has come about mainly through the APA accreditation process. The APA accredits programs in clinical, counseling, and school psychology; over 50 percent of the doctorates awarded in psychology each year are awarded in these three areas. (Clinical psychology accounts for 40 percent for the doctorates awarded each year; counseling and "other" are second with 15 percent each; developmental/gerontological and educational account for 6 percent each; and school psychologists make up less than 3 percent of all doctoral candidates in psychology [APA, 1986a, 12–13]). To be accredited, the program must include supervised practicum and internship experience appropriate to the field of psychology (APA Committee on Accreditation, 1986, App. B).

THE PSYCHOLOGY INTERNSHIP

The Practicum Experience

Before prospective psychologists enter internship, they have already been exposed to the practice of their profession through a practicum. According to the APA Accreditation Guidelines, "Practicum training is field experience, usually taken for academic credit, often on campus. The practicum provides for student experiences with client problems and learning of relevant psychological skills. The practicum is intended to prepare the student for the internship and is prerequisite to it" (APA Committee on Accreditation, 1986, B15). The practicum parallels student teaching in many ways, for the candidate is concurrently enrolled in a formal education program, has limited responsibilities, is closely supervised, is not paid, and is given the opportunity to observe practitioners at work.

According to the APA, practicum training is intended to develop the following capacities (APA Committee on Accreditation, 1986, B16–17):

1. Understanding of the commitment to professional and social responsibility as defined by statutes of the ethical code of the profession.
2. The capability to conceptualize human problems.
3. Awareness of the full range of human variability: handicapping conditions, age, gender, ethnic and racial background, religion, and lifestyle.
4. Understanding of one's own personality and biases and of one's impact upon others in professional interaction.
5. Skill in relevant interpersonal interactions such as systematic observation of behavior, interviewing, psychological testing, psychotherapy, counseling, and consultation.
6. Ability to contribute to current knowledge and practice.

The minimum practicum experience is 400 hours, of which at least 150 hours is in direct service experience and at least 75 hours is in formally scheduled supervision. Other recommended practicum activities include attending case conferences and writing reports and clinical notes (APA Committee on Accreditation, 1986, B17).

Clearly, these are ambitious goals. It is unlikely that even an experienced psychologist is truly aware of his or her own personality and biases, never mind the full range of human variability. Still, the basic intention is clear; the practicum is designed to develop the participant's commitment to and awareness of the values of the profession. The internship aims to reinforce these lessons and extend them.

Competition for Candidates and Programs

After completing a practicum and coursework (and sometimes dissertation), doctoral candidates in accredited school, counseling, and clinical psychology programs must undertake a one-year internship. Internship programs may either be connected to a single graduate department or school from which they draw all their interns, or they may be administratively independent of a school/graduate program and draw their interns from many sources (APA Committee on Accreditation, 1986, B18).

Because interships are required by all accredited programs, there are two groups of captive suitors: internship programs compete for interns, and interns compete for places in those programs. As a result, internship programs produce brochures describing their offerings to prospective interns: "The internship offers a rich and striking array of learning experiences with opportunities to work from a variety of theoretical perspectives," explains one brochure (District of Columbia Commission, 1987, 1); the program "offers a psychology internship of unusual breadth and depth to qualified graduate students," asserts another (Veterans Administration Medical Center, 1988, 1).

In turn, applicants are required to submit detailed evidence of their experience and qualifications. Different programs make different requests, but typically ask for such things as samples of testing work, transcripts or cassettes of psychotherapeutic activity, case write-ups, an assessment of personal strengths and weaknesses, an autobiography, and a statement of theoretical orientation and goals (Veterans Administration Medical Center, 1988; Harvard Medical School, 1988; and District of Columbia Commission, 1987).

In addition, some 400 accredited internship programs have banded together to form a consortium, the Association of Psychology Internship Centers (APIC). APIC publishes an annual directory for candidates describing its members' programs, and has established a uniform reply date for all its member programs. All APIC members must notify candidates of their rejection in writing on a certain date; candidates who have been accepted or wait-listed are notified by telephone about a week later. Candidates have 24 hours to accept or reject the internship's offer, and no candidate may keep more than one offer active at a given time. This sophisticated notification system demonstrates how central the internship is to the psychology profession, at least to the elite group that attends APA-accredited programs (APIC, 1987).

Standards for APA-Accredited Internships

APA-accredited internship programs must meet the following standards listed below (APA Committee on Accreditation, 1986, B18–22):

Administration:

a. Demonstrate sufficient resources and administrative support.
b. Recognize training activities as an integral part of the agency's activities, and reward staff members accordingly.
c. Establish close working relationships between internship and graduate program.
d. Conform to APA standards and guidelines
e. Demonstrate a high regard for human dignity.

Staff:

a. Staff should be large enough to provide a variety of role models.
b. A clearly designated psychologist with extensive training experience should be responsible for the program.
c. Collaborative work with other disciplines is desirable.

Interns:

a. Program must make sure that accepted interns are appropriately qualified to undertake internship (with relevant didactic and practicum experience).
b. Provision should be made for more than two interns to promote intertrainee stimulation.
c. Interns should be actively involved in evaluating their own experiences.
d. Service goals must not erode training goals.

Program:

a. Internship programs should develop and distribute descriptive materials about the goals and content of the training program.
b. Internships should provide supervised experience in an organized sequence of activities and exposure to a variety of problems.
c. Interns should learn and apply ethical standards to the practice of psychology.
d. Intensive individual supervision of ample quality and quantity must be provided (minimum 2 hours per week).
e. Interns should receive periodic, clearly identified evaluations designed to facilitate their change and growth.
f. Program should perform self-evaluations.

g. Facilities (office space, library resources) must be adequate.
h. Program should maintain records for all interns.
i. Recruitment procedures must allow interns free choice.

The APA accredits internships only after an involved application process, including a thorough self-evaluation by the institution applying for accreditation, and site visits by APA representatives. Continuing accreditation depends upon additional site visits every five years (APA Committee on Accreditation, 1986, A1-5).

Internship Requirements for Registration

Internship requirements for those seeking registration as well as licensure are essentially the same as for those completing APA-accredited programs. The CNRHSPP requires an internship to meet the standards below (CNRHSPP, n.d.a.):

1. An organized training program designed to provide the intern with a planned, programmed sequence of training experiences.
2. Internship agency has designated a licensed staff psychologist to be responsible for the training program.
3. Agency has two or more psychologists on the staff as supervisors, at least one of whom is licensed by the state.
4. Supervision was carried out by an agency staff member and at least half was supervised by (a) psychologist(s).
5. Training was provided in a range of assessment and treatment activities conducted directly with patients.
6. At least 24 percent of intern's time was in direct patient contact (minimum 375 hours).
7. There were at least two hours per week of formal face-to-face supervision of intern by supervisor; in addition, there were at least two hours per week of additional learning activities (seminars, co-therapy, additional supervision, etc.).
8. Training was postclerkship, postpracticum, postexternship.
9. Agency had at least two interns while applicant was training.
10. Trainee had appropriate title ("intern," "resident," "fellow," etc.)
11. Agency provided interns with a written statement or brochure describing the goals and content of the internship and expectations the quality and quantity of the interns' work.
12. Internship (minimum 1500 hours) was completed within two years.

The CNRHSPP verifies that an internship has met these criteria by asking the supervisor to sign a form that lists the twelve guidelines on the back, and reads in part "I hereby attest that all of the above information [name of agency, dates of internship, etc.] is true and correct to the best of my knowledge, and that all the Guidelines (on reverse side) have been met." The applicant is asked to describe briefly the "nature of training" (CNRHSPP, n.d.b.).

Supervision in Psychology Internships

Psychology internships consist of two main components: didactic training and supervised practice. Supervision (discussion of clinical experiences with a seasoned professional) is the central part of all psychology internship programs. The District of Columbia Commission on Mental Health Services' description of supervision reads, in part, as follows:

> Intensive clinical supervision is the single most important class of training activity for the intern. Virtually all activities are buttressed by supervision. This includes, but is not limited to, three individual psychotherapy supervisors, one group psychotherapy supervisor, one family psychotherapy supervisor, at least two psychodiagnostic assessment supervisors, one clinical supervisor for the ward placement, in addition to the day-to-day on-site supervision and consultation that is provided. In other words, each intern has a minimum of seven hours of supervision per week, hours in which an intern receives the support and challenge to learn and grow.

The passage goes on to explain how supervisors "serve as role models for interns," allowing the interns to observe many different styles of practice and thereby "build their own professional stance" (District of Columbia Commission, 1987, 14).

The University of California at Los Angeles offers "virtually an unlimited amount of supervision from psychologists, psychiatrists, and social workers." According to UCLA's Orientation Manual, interns average six hours of supervision per week and generally have contact with two to three times that number of supervisors during the year. Supervisors are members of the university's faculty, as well as practitioners from the nearby community. Over 300 psychologists and psychiatrists from the Los Angeles area are on the UCLA volunteer faculty (UCLA, 1988a, 9).

Central to the internship, then, is an exchange between the intern and the experienced psychologist on the subject of appropriate practice. The intern gains not only practical experience from daily contact with clients, but also theoretical and pragmatic advice from an accomplished professional who observes and discusses the intern's work.

Didactic Seminars in Psychology Internships

Psychology internships also include required seminars that accompany supervised on-the-job experience and expose interns to various issues in the profession. Harvard Medical School's predoctoral internship in clinical psychology, for instance, has a core curriculum required of all interns that includes three 1.5-hour weekly seminars (Psychological Testing, Psychotherapy, and Didactic Group Experience), a weekly 1.5-hour clinical psychology conference in which training staff and interns make presentations, a weekly interns' meeting in which interns provide one another with mutual support, weekly rounds, either grand or somatic, and individual training in psychological testing (Harvard Medical School, 1988, 3–4). The District of Columbia Commission on Mental Health Services requires all interns to have specified amounts of exposure to each of four areas: psychological assessment, individual psychotherapy, group training, and supervision and seminars. These seminars include Psychodiagnostic Assessment, Psychotherapy Case Conference, On Being in a Ward, Group Psychotherapy Literature, and a weekly intern support group (District of Columbia Commission, 1987, 11–14). These structured seminars provide opportunities for interns to learn factual information at a time when it is likely to "stick," as well as occasions for peer interaction.

Evaluation in Psychology Internships

Evaluation in psychology takes place throughout the year, providing candidates with continuous feedback on their progress. For the most part, this evaluation comes through informal contact between interns and their supervisors, but periodic formal assessments are part of every program we examined.

At Children's Hospital National Medical Center, interns are evaluated formally three times a year; supervisors rate the interns' skills in treatment, consultation, case management, assessment, research, and professional behavior, using a set of scales designed by the program. The evaluations are discussed openly with the intern, and "are primarily designed to insure that the interns are making optimal use of the experience at Children's Hospital and that the experience meets the needs of the interns and their sponsoring universities" (Children's Hospital, 1988, 5).

At UCLA, trainees receive quarterly written evaluations from their supervisors on forms that read as follows:

> Please describe the cases and professional services being supervised (and) evaluate the trainee's performance . . . You might note ability to establish rapport, to understand patient's psychological functioning, to communicate clinical data in writing and verbally; to benefit from supervision, to work effectively with staff and students; knowledge of relevant literature; and dependability in completing reports and meeting appointments . . . (UCLA, 1988b).

Advisers are asked to complete a similar form, with the instructions:

> As an Advisor, please discuss the following: 1. General summary of the current level of professional development, including particular strengths and weaknesses. 2. Any special activities or projects participated in or, especially, initiated by the trainee. 3. Recommendations for further training: areas of special emphasis, supervisory problems, and suggested approach. 4. Distinguishing personality characteristics, especially as they relate to professional functioning (UCLA, 1988c).

These evaluations, according to the Orientation Manual, "are designed to provide early, timely feedback in case there are problems," and also serve as the basis for the final report that is sent to the trainee's home institution upon completion of the internship (UCLA, 1988a, 16).

In no case are evaluators provided with a checklist of attributes to look for in interns; rather, the evaluations rely on the professional's ability to recognize appropriate behavior, and to suggest appropriate adjustments.

REFERENCES FOR PSYCHOLOGY

American Association of State Psychology Boards (AASPB), *Entry Requirements for Professional Practice of Psychology*, Montgomery, Alabama, n.d.

American Psychological Association (APA) Committee on Accreditation, *Accreditation Handbook*, (rev.), Washington, D.C., 1986.

American Psychological Association (APA), *Licensing/Certification Requirements*, Washington, D.C., 1988.

American Psychological Association (APA), *Careers in Psychology*, (rev.), Washington, D.C., 1986a.

American Psychological Association (APA), *Psychology as a Health Care Profession*, Washington, D.C. 1986b.

Association of Psychology Internship Centers (APIC), *APIC General Policy Regarding Internship Offers and Acceptance*, Washington, D.C., 1987.

Children's Hospital National Medical Center, *Predoctoral Internship Training Program in Child Clinical Psychology, 1988-89*, Washington, D.C., 1988.

Council for the National Register of Health Service Providers in Psychology (CNRHSPP), telephone conversation, 23 September 1988.

Council for the National Register of Health Service Providers in Psychology (CNRHSPP), *Guidelines for Defining an Internship or Organized Health Service Training Program in Psychology*, Washington, D.C., n.d.a.

Council for the National Register of Health Service Providers in Psychology (CNRHSPP), "Internship Confirmation Form," Washington, D.C., n.d.b.

Council for the National Register of Health Service Providers in Psychology (CNRHSPP), "Application Form," Washington, D.C., n.d.c.

District of Columbia Commission on Mental Health Services, *Training in Clinical Psychology*, Washington, D.C., 1987.

Harvard Medical School at the Massachusetts Mental Health Center, *Predoctoral Internship in Clinical Psychology*, Boston, 1988.

University of California at Los Angeles School of Medicine (UCLA), *Psychology Training Program: Orientation Manual 1988-89*, Los Angeles, 1988a.

University of California at Los Angeles School of Medicine (UCLA), "Evaluation of Psychology Trainee (Supervisor)," Los Angeles, 1988b.

University of California at Los Angeles School of Medicine (UCLA), "Evaluation of Psychology Trainee (Advisor)," Los Angeles, 1988c.

Veterans Administration Medical Center, *Psychology Internship Program*, Washington, D.C., 1988.

Wichenski, Marlene, American Psychological Association, telephone conversation, 23 September 1988.

ARCHITECTURE

CONTEXT FOR THE ARCHITECTURAL LICENSURE PROCESS

Governance of Licensure

In architecture, as in engineering, it is possible to practice without being a licensed architect, but as in engineering, all plans must ultimately be signed by an architect who is licensed. Consequently, architecture firms tend to include one or more licensed architects who bear full responsibility for the firm's work, and a number of other practitioners whose tasks range from drafting to design. At present, there are some 85,000 licensed architects, and another 150,000 nonlicensed individuals working in support positions in architecture firms. Some, but by no means all, of these 150,000 consider themselves to be architects (Balen, 1988).

All licensure is done by individual states, although the National Council of Architectural Registration Boards (NCARB) keeps centralized making reciprocal arrangements fairly simple (NCARB, 1988a, 3).

As in engineering and psychology, requirements for architecture licensure are becoming both more stringent and more standardized. Guidelines affecting the internship period have been adopted by 30 of 55 jurisdictions, and many states that once permitted the substitution of experience for formal education no longer do (Balen, 1988; NCARB, 1988c). The Architect Registration Examination (ARE) is now required in all states; this rigorous examination provides a universally applied standard for entrance into the profession.

Professional Attitudes Towards Licensure

Licensure seems fairly well accepted by the profession, and official documents do not try to persuade prospective architects to "join up." Rather, the profession has devoted its energies to standardizing requirements across states, and to formalizing the internship through the Intern-Architect Development Program (IDP). IDP documents list the advantages of undertaking an IDP internship, but the exhortative tone present in all of the National Society of Professional Engineers documents is reserved for persuading practicing architects to serve as professional advisers to interns (NCARB, 1987; NCARB, 1986, 3).

THE ARCHITECTURE LICENSURE PROCESS

Common Features

Licensure in architecture is a three-part process. The candidate must first complete the educational requirements of the profession: general education; history, human behavior and environment; design; technical systems; and practice (NCARB, 1987). These requirements may be met in five, six, or seven and a half years: a five-year bachelor of architecture degree, a four-year bachelor of science in architectural studies followed by a two-year master's in architecture, or a four-year liberal arts degree followed by a three-and-a-half-year master's in architecture.

Following the formal education component, candidates undergo a structured three-year internship. Architecture offers the option of undergoing a highly structured internship under the IDP. IDP participants must follow a rigorously prescribed program during their experiential training, described below. Having completed the internship, candidates are eligible to sit for the ARE, a four-day, eight-part exam covering topics such as site design, building design, and mechanical, plumbing and electrical systems. The examination includes multiple-choice questions, written simulations, written identification, and problems that require the candidate to produce actual architectural drawings. A candidate who has passed each of the test's eight sections with a score of 75 or better and submits character references along with evidence of completion of all other requirements is eligible for registration as a professional architect.

Thus, in most states, to be licensed as an architect a candidate must meet the requirements below (NCARB, 1988c).

- A degree in architecture. A few states require that the degree be from a program accredited by the National Architectural Accrediting Board (NAAB); most that do not require compensatory work to be done by those without an NAAB-accredited degree.
- Three or more (depending on education level) years of experience. In 30 jurisdictions, this experience must meet IDP guidelines.
- A passing score on all nine sections of the ARE examination.

Interstate Variations

State requirements vary quite a bit from this model. As of July 1988, 37 jurisdictions permitted individuals with only a high school diploma to be licensed, requiring from three to thirteen years of practical experience to compensate for the five or six years of education generally required; only 14 required an NAAB-accredited degree. Of the 41 jurisdictions permitting non-NAAB-accredited degrees, all but four require non-NAAB graduates to have at least four (in comparison to three) years of experience; some even require seven years. All jurisdictions but one require at least three years of experience for NAAB graduates (NCARB, 1988c).

THE ARCHITECTURE INTERNSHIP

The Impetus for the Intern-Architect Development Program

The experience component is central to architecture. Until 70 years ago, architecture was learned through apprenticeship, and the willingness of many states today to accept experience as a substitute for education shows how central the experience component still is. As formal education programs arose, a movement to standardize the profession began, and an accreditation board was started in 1920. In 1962, the NCARB developed a uniform national examination, which all states adopted (NCARB, 1988b, 2).

In the mid-1970s, two investigations independently determined that the third phase of training—the apprenticeship—also needed standardization. The American Institute of Architects (AIA), as the professional association of architects, saw a gap in the preparation of competent architects: both architecture schools and the architectural examination were rigorous and relevant, but the (generally) three years of required internship were all too often spent in unstructured ways doing menial tasks. At the same time, the NCARB recognized the growing public concern over the quality of training: given that licensed architects are legally permitted to provide all architectural services, it is in the public's interest for them to have had a strong program of on-the-job training (Rosenfeld, 1988).

These two forces converged to establish a set of initial training objectives, which evolved into a rigorous collection of supervised experiences that interns must undergo during their three years of on-the-job training. The standards, now known as IDP, were fixed in the late 1970s, and in 1978 Mississippi became the first state to require

IDP; it is now the training standard in 30 jurisdictions and considered acceptable in all of them. Eventually, the NCARB envisions nearly all states adopting the IDP or something similar. At present, however, participation in the program is entirely voluntary (Rosenfeld, 1988; Balen, 1988).

So far, it is estimated that 8,000 to 10,000 architects have met IDP standards in their internship, but since interns can meet IDP standards without telling the IDP office, it is impossible to keep precise records. The 8,000 to 10,000 figure over the past ten years represents 8 to 10 percent of the architects who have sat for the examination, but since there were only a few hundred IDP participants in the first several years, recent figures would be much higher (Rosenfeld, 1988). Today it is estimated that 35 to 40 percent of current interns are in IDP-type programs (Balen, 1988).

The internship program has been one of the few cooperative efforts among all levels of the profession; schools of architecture, professional associations, and state accreditation boards were all involved in the preliminary discussion and development of the program (Rosenfeld, 1988).

Objectives of the Intern-Architect Development Program

Justification for the IDP is offered in the introduction to its book of guidelines: "a comprehensive internship is essential in order to acquire and reinforce the education, discipline, integrity, judgment, skills, knowledge, and quest for learning that must serve the registered architect for a lifetime" (NCARB, 1987, 1).

The objectives of the program are fourfold:

1. To provide high-quality information and advice.
2. To define and encourage activity in the areas in which intern-architects (IAs) should develop basic knowledge and skills, as well as to encourage activity in other parts of the field.
3. To provide a uniform system for documenting and assessing internships.
4. To increase access to supplementary educational opportunities.

That is, the program seeks to (1) inform and advise, (2) define the knowledge base, thereby ensuring exposure to it, (3) document and assess uniformly, and (4) provide educational access (NCARB, 1987, 1).

The Advisory Structure of the Intern-Architect Development Program

The IDP has a highly structured system of advisers and sponsors. For each intern, the IDP theoretically demands participation by four supervisory architects (NCARB, 1987, 1):

- A professional sponsor: the IA's employer; exposes IA to practice, verifies IA's experience.
- A professional adviser: a registered architect outside the sponsor's firm; provides guidance, acknowledges IA's experience.
- An educator-adviser: a registered architect on university faculty; provides information and advice.
- The state coordinator: an AIA/SRB state-appointed individual; monitors and assists.

In practice, the educator-adviser position has proved problematic, since architectural academicians are often removed from the world of practicing architects; the two most central characters are the professional sponsor and the professional adviser (Balen, 1988).

The IA must take the initiative for obtaining a professional sponsor and adviser. The professional sponsor is essentially an employer who is willing to hire the intern. The professional adviser is more of a mentor, and NCARB has taken on some of the responsibility for recruiting people to take on this role. It encourages architects to participate in the program by appealing to their historical sense of responsibility for training apprentices. In the IDP sponsor/adviser guidelines, for instance, the description of professional adviser begins:

> As a professional adviser, you will play an important and traditional role that is as old as architecture itself: the role of mentor. You must be a positive and highly motivated architect who can contribute to the overview that enables the IA to achieve a broad perspective of the profession. You must challenge the IA to aspire to increasing levels of knowledge, skill, and professionalism. Your special relationship with the IA, unencumbered by the pressures and expectations inherent to employment settings, permits a free exchange of ideas, questions, and advice (NCARB, 1986).

Required Internship Training Categories

There are three acceptable methods of exposure to the IDP requirements: participation (actually doing), observation (watching a task be done), and supplementary education (seminars or programs). The IA is not permitted to use education as the exclusive means of gaining exposure to the required categories; the IA must spend at least 235 days working under a registered architect. Credit can be earned for employment only if the IA works 35 hours per week for six consecutive months or, if in an architecture firm, 10 weeks at 35 hours per week or six months at 20 hours per week—i.e., substantial and continuous experience (NCARB, 1987, 4).

The IDP identifies three required training categories: (A) design and construction, (B) construction administration, and (C) office management, as well as a fourth optional category, (D) related special activities. Within each training category are up to nine training areas; each intern must be exposed to each area. In the entire internship, each IA must acquire 700 value units or VUs; one VU equals eight hours of activity. Approximately two-thirds of the VUs—465, to be specific—must be acquired to satisfy these distribution requirements. The remaining 235 VUs may be met in any category, including D (NCARB, 1987, 2-4).

The training areas and the number of VUs required in each are:

- Category A—design and construction (360):
    - programming—client contact (10)
    - site and environmental analysis (10)
    - schematic design (15)
    - building cost analysis (10)
    - code research (10)
    - design development (40)
    - construction documents (155)
    - specifications and materials research (15)
    - documents checking and coordination (15)
    - additional VUs spent in any or all of the above areas (75)

- Category B—construction administration (70):
    - bidding and contract negotiation (10)
    - construction phase—office (15)
    - construction phase—observation (15)
    - additional VUs spent in any or all of the above areas (30)

- Category C—office management (35):
    - office procedures (15)
    - professional activities (10)
    - additional VUs spent in one or both of the above areas (10)

- Category D—related special activities (no minimum requirement):
    - energy conservation
    - computer application

construction management
planning
interior design
landscape architecture
environmental engineering
structural engineering
applied research
teaching
historical restoration
professional delineation
others

Note that two areas, construction documents (155 VUs required) and design development (40 VUs required), are considered much more important than the others, and require the intern to devote at least 31 weeks and 8 weeks respectively to them; all other areas require a minimum of 2 or 3 weeks of total work (NCARB, 1987, 2–3).

Suggested Intern Activities

For each training area, the IDP training guidelines include a list of suggested activities for interns. For design development, for instance, the guidelines read:

> Based on the owner-approved schematic design, the architect fixes and details, for the owner's further approval, the size and character of the entire project, including selection of materials and engineering systems. Possible Intern-Architect Activities:
>
> a. Participate in the preparation of detailed development drawings from schematic design documents
> b. Assist in developing various schedules and outline specifications for materials, finishes, fixed equipment, fixtures
> c. Help to coordinate engineering systems proposed for the project
> d. Participate in design review and approval meetings with clients, user groups, etc." (NCARB, 1987, 9).

Examples of other appropriate internship activities include: *participating* . . . in conferences with clients, in development and review of design concepts, in public hearings, in the preparation of detailed development drawings, in the resolution of contract disputes; *assisting* . . . with presentations, in preparing summary and evaluation of data, in analyzing sites, in formulating strategies, in the analysis and selection of engineering systems, in preparing cost estimates, in searching and documenting codes, in cross-checking products and materials, in developing schedules, in prequalifying of bidders, in preparing and negotiating of construction contracts, in processing applications for payment, in checking shop drawings, in evaluating requests for changes, in developing publicity programs; *visiting* . . . existing projects, job sites; *researching* . . . current literature, site restrictions, costs per square foot, industry standards, legal responsibilities; and *calculating* . . . area and volume to determine costs, code requirement variables (NCARB, 1987, 8–12).

Evaluation of the Internship

Verification of the internship comes from four quarters: the intern (recording), the sponsor (verifying), the adviser (acknowledging), and the IDP board (checking); the main burden is on the intern and the sponsor. The intern is required to maintain a continuous record of training and supplementary education in the form of a bar graph (see the facsimile of the recording form in App. A). On this graph, the IA records daily activities by filling in a square of the bar corresponding to the appropriate IDP distribution area. The intern does not record the specific activity performed to satisfy the distribution area, and no provision is made for more detailed record-keeping. Since the intern has contact with the sponsor on a daily basis, it is assumed that the sponsor is aware of the IA's activities. Monthly, the two go over the intern's record, and if the intern has kept accurate track of his or her activities, the sponsor signs it. Questionable information can be checked against the firm's time sheets, which generally specify both the nature of the activity and the project to which it was connected; there is no provision, however, for determining whether the work was satisfactory. It is the intern's responsibility at these meetings to point out areas in which he or she still lacks experience, and it is the sponsor's responsibility to provide guidance about where to gain such experience (Fowler, 1988; Balen, 1988).

The adviser's role in evaluation is more peripheral. He or she meets with the intern every two months to discuss the intern's progress, and three times each year, signs the intern's record if confident that it is accurate (Fowler, 1988). The IDP describes the expectations for a professional adviser as follows:

> 1. to meet at least quarterly with each IA to review progress, to suggest various professional development opportunities, to acknowledge the intern's quarterly [now trimesterly] documentation of all internship activities, and to respond creatively to the intern's other professional needs . . . and 2. to meet periodically with the IA's sponsor, if useful, to discuss the intern's progress and opportunities for acquiring new exposures and the advisability of assigning new responsibilities (NCARB, 1986).

The adviser receives a copy of the IDP guidelines, and is invited to attend state-organized meetings that introduce advisory system participants to the IDP program (Fowler, 1988).

The final component of evaluation comes from the IDP itself, which examines the intern's record and ascertains whether it meets IDP guidelines. This is primarily a function of counting boxes, however, and although the IDP occasionally does call an intern's record into question (if it claims, for instance, that the IA spent 80 hours per week working), the evaluation is basically pro forma (Fowler, 1988).

The informality of the evaluation process in architecture is a consequence of three things: the historical status of architectural apprenticeships, architects' self-interest in keeping the profession prestigious, and the fact that interns are paid employees. Because the apprenticeship has historically been so central to architectural training, architects are used to having interns around their offices, and to teaching them the ways of the profession. Consequently, the developers of the IDP did not feel it necessary to produce guidelines describing how one goes about supervising an internship. In fact, throughout the IDP literature the authors stress that this program is simply a codification of what good apprenticeship programs were doing already, not the imposition of some new master plan. Secondly, it is in the self-interest of the architects involved to make the internship as rigorous as possible. The prestige of the profession depends on the quality of its practitioners, and the IDP represents an effective and efficient way of preparing high-quality future architects. Finally, since the interns are paid employees of their sponsors, there is no incentive to reward shoddy work or to squander interns on menial tasks. Interns with no professional degree and no experience earn about $7 per hour; with a degree and some summer experience, an intern might earn $16,000 to $17,000 per year; after three years of experience, an intern's salary is likely to be $23,000 to $24,000. Postregistration, a fledgling architect earns in the low $30,000s (Fowler, 1988).

Upon completion of the internship, the IA is eligible to sit for the architectural examination. To do so under IDP standards, the IA must verify educational experience (generally by asking the school to provide a transcript), fulfillment of all requirements of the IDP guidelines (generally by submission of a signed form such as the IDP recordkeeping form), and character (by providing the names of three additional architects to serve as character references). The candidate's record is then submitted to the local board, with an NCARB recommendation for admission to the examination if requirements have been fulfilled; when the IA passes the examination, he or she may be registered. Then, the candidate's record can be considered for NCARB certification; NCARB conducts a final review and, if all conditions have been met, certifies the candidate. NCARB certification allows reciprocal certification with other boards (NCARB, 1988a).

REFERENCES FOR ARCHITECTURE

Balen, Samuel, Executive Director, conversation, National Council of Architectural Registration Boards, 26 October 1988.

Fowler, Cheryl, Assistant Director of Internship Programs, National Council of Architectural Registration Boards, telephone conversation, 22 September 1988.

National Council of Architectural Registration Boards (NCARB), *IDP Sponsor/Advisor Guidelines*, Washington, D.C., 1986.

National Council of Architectural Registration Boards (NCARB), *IDP Training Guidelines—1987-88*, Washington, D.C., 1987.

National Council of Architectural Registration Boards (NCARB), *1988-89 NCARB Circular of Information No. 1: Organization, Services, Procedures, Records, Certifications and Examinations*, Washington, D.C., 1988a.

National Council of Architectural Registration Boards (NCARB), *1988 NCARB Circular of Information No. 2: The Architect Registration Examination*, Washington, D.C., 1988b.

National Council of Architectural Registration Boards (NCARB), *Member Board Requirement Chart—July 1988*, Washington, D.C., 1988c.

Rosenfeld, Robert, Director of Internship Programs, National Council of Architectural Registration Boards, telephone conversation, 22 September 1988.

MEDICINE

CONTEXT FOR THE MEDICAL LICENSURE PROCESS

Governance of Licensure

Medicine, like psychology, requires all practitioners to be licensed but maintains two tiers of practitioners: those who are licensed, and those who are further licensed by a particular specialty board. The latter are known as "board certified." Licensure is done by individual states, but a degree of uniformity comes from American Medical Association (AMA) accreditation of graduate medical programs, and from the national standardized examinations that are required for licensure in every state. A certain number of physicians work as teachers, researchers, or administrators without being licensed, but there are no exempt classes of practitioners.

Although licensure is done by individual states, since the mid-1970s all states have required one of two national standardized examinations. Variations in state requirements are limited to differences in cut-off scores on the examinations, technical requirements regarding reciprocal licensure of individuals licensed prior to the development of standardized examinations, and requirements for graduates of foreign medical schools.

Somewhat over half of all medical school graduates choose to be licensed further by one of the more than 30 medical specialty boards. The five most popular areas for specialty licensure are internal medicine, surgery, family medicine, pediatrics, and psychiatry (Crowley, 1986, 92). Board certification presumes state licensure as a prerequisite, but each of the specialty boards is independent and nationally recognized. Individuals who are board certified in a specialty are nationally recognized.

THE MEDICAL LICENSURE PROCESS

Common Features

Licensure as a physician is at least a four-part process. The candidate must first complete a four-year MD program at an accredited medical school, which includes, in addition to coursework, a significant amount of field experience. The candidate then takes one of two examinations: the Federation of State Medical Boards' FLEX I examination, or Part II of the National Board of Medical Examiners' (NBME) three-part examination series. (Candidates who elect the NBME route must take the NBME Part I upon completion of their second year of medical school.) After passing the FLEX I or NBME Part II, the candidate undergoes a one-year internship, and then takes either Part III of the NBME examination series or the FLEX II.

Thus, to be licensed in medicine, a candidate must have:

- An MD degree from an accredited U.S. or Canadian medical school (a "fifth pathway" of licensure exists for graduates of foreign medical schools).
- One year of postgraduate medical experience in an Accreditation Council for Graduate Medical Education (ACGME)-approved internship.
- Passing scores on both parts of the FLEX or all three parts of the NBME examination (AMA, 1988).

Additional Requirements for Board Certification

Candidates seeking board certification then begin a two- to five-year residency; for each medical specialty, a structured residency program is prescribed by its regulatory board. Each specialty's regulatory board sets its own standards for a postresidency examination, but most include both an oral and a written component.

Thus, candidates who seek to be board certified in addition must have:

- A two- to five-year postinternship residency in an ACGME-approved residency program (certain subspecialties require even more than five years).
- Passing scores on the appropriate board-required written and oral examinations (Crowley, 1986).

Requirements of the individual boards vary tremendously, both in number of years of post-medical school experience required and in terms of specific experiences candidates are expected to have, but a certain central core of expectations is common, including both depth and breadth of exposure, opportunities to both observe and practice, and inclusion in a cohort of other interns.

THE MEDICAL INTERNSHIP

The Pregraduate Clinical Experience

All medical school students undergo something like student teaching in a hospital setting where they observe practicing physicians and exercise basic medical skills. According to the ACGME's *Essentials of Accredited Residencies in Graduate Medical Education,*

> During the undergraduate phase, students gain knowledge of the sciences basic to medicine and learn to apply that knowledge to clinical problems. Skills in collecting data are developed by interviewing and examining patients and selecting and applying laboratory procedures under the guidance and supervision of the faculty and residents. Students learn to utilize these data to arrive at diagnostic hypotheses and make therapeutic decisions. These basic skills are learned by rotations through a variety of clinical disciplines in both in-patient and out-patient settings. Undergraduate medical students generally do not participate in the care of individual patients for an extended period of time (ACGME, n.d., 9).

The Initial One-Year Internship

After graduating from medical school and performing satisfactorily on the factual part of one of the two nationally administered examinations, all candidates are required to undertake a one-year internship in a hospital or clinical setting. Since most doctors choose to become board certified, this internship is generally part of a larger residency program, and serves as a general introduction to medicine before the candidate specializes. Regardless of the length of the internship or residency, however, a similar philosophy applies:

> During the graduate phase, the knowledge and skills acquired in medical school are expanded through the progressive assumption of personal responsibility for patient care in supervised, clinical, educational environments which provide opportunities to learn about the variability of human beings in health and disease and about their biological, emotional and social problems. As residents progressively gain more knowledge and skill they are provided greater latitude to make decisions and treat patients, but always under supervision (ACGME, n.d., 9–10).

Competition for Candidates and Programs

As in psychology, medical residency programs compete for residents and residents compete for the programs. Programs produce glossy brochures that describe their merits. "Our Family Practice Residency Program thrives in the setting of a fully accredited, acute care, community hospital where family practice is regarded with the same esteem as any other specialty," boasts Saint Margaret Memorial Hospital in Pittsburgh (Saint Margaret, 1988a, 4). The Cleveland Clinic Foundation's Graduate Medical Education Program brochure has sections describing "A Firm Foundation for Professional Growth," "Excellence in Patient Care," "Innovation through Research," "Sharing Expertise through Education," and "Cleveland—An Engaging Environment" (Cleveland Clinic, 1988, 1-3, 42). Applicants in turn must submit transcripts, letters of reference, and autobiographical information about their reasons for applying.

General Features of Residency Programs

Programs in each of the specialties vary significantly, but all follow a basic schema moving from the general to the specific, and from the supervised to the unsupervised. All seek to balance the resident's needs with those of the patient, and to help the resident recognize personal strengths and weaknesses. Psychiatry, for instance, demands that residency programs, in addition to providing trainees with systematic instruction and substantial experience in 17 specific areas, offer them (Crowley, 1986, 80):

- An appropriate and progressive degree of responsibility for the care of patients
- An adequate variety of patients
- An appropriate amount of type and experience in the treatment of inpatients
- Optimal case load
- Interdisciplinary conferences
- Individual supervision
- Electives.

Anesthesiology as a Model

Anesthesiology's structure is typical: one year of general exposure to medicine, one or more years of general exposure to the specialty area, and a final year of exposure to a specific area chosen by the candidate.

> An approved four year program in anesthesiology provides education, training and experience in an atmosphere of mutual respect between instructor and resident so that the resident will be stimulated and prepared to apply his acquired knowledge and talents independently. It is recognized that there are varying pathways to the development of a consultant anesthesiologist and the following requirements should be regarded as minimum standards for its accomplishment.
>
> - G-1: a Clinical Base year that does not focus on anesthesia, but rather on internal medicine, ob/gyn, neurology, surgery, family practice or pediatrics
> - G-2 and G-3: two Clinical Anesthesia years focusing on crucial aspects of anesthesia
> - G-4: a Specialized Year, designed by the resident and program director
>
> The teaching staff must be dedicated and diverse, and be willing to devote significant time to supervising and training residents. Didactic training should accompany clinical experience, and current research should be made available as educational stimulation and to promote a scholarly environment (Crowley, 1986, 18).

The burden for promoting an atmosphere for learning is shared between the intern and the instructor, and the instructors are expected to serve both as models of good practice and sources of information.

Progressive Assumption of Responsibility

Progressive assumption of responsibility is a central principle of all medical internships. In pediatrics, for instance, the guidelines state: "The most important vehicle for learning is the assumption of responsibility by the resident for arriving at his/her own diagnostic impressions, for consulting appropriate literature or other source material or persons, for developing plans for diagnostic studies and for writing orders" (Crowley, 1986, 63). In Yale University's Residency Training Program in Psychiatry, the first year is spent in an internship-like experience in a general hospital. During the second and third years, the candidate begins to take on short-term and long-term patients. The final year allows the advanced resident to choose a subspecialty and practice essentially as an independent psychiatrist (Yale University, n.d., 8–11).

Didactic Seminars in Medical Internships

Didactic instruction accompanies practical training, both philosophically and logistically. The psychiatry board guidelines state explicitly that:

> The clinical responsibility must never be greater than that which is optimal for educational purposes; . . . the educational program must include systematic instruction and clinical experience in all of the generally accepted diagnostic and therapeutic procedures. . . . Formal educational activity shall have a high priority in the allotment of the resident's time and energies. The clinical responsibilities of residents must not infringe unduly on didactic educational activities and formal instruction (ACGME, 79).

Actual programs, psychiatric and otherwise, seem to heed this advice. Saint Margaret Memorial Hospital's family medicine program offers 1,200 hours of coursework annually, on subjects from cardiology to community medicine to radiology; residents are encouraged to participate in any number of these (Saint Margaret, 1988a, 13). Yale University's Residency Training Program in Psychiatry offers weekly electives on topics from Substance Abuse Treatment, to Classic Papers in the Psychology of Women, to Law and Psychiatry. Residents are encouraged to enroll in these seminars, and many of them are designed specifically for them (Yale University, 1988, 3–8).

Exposing Candidates to the Ethos of the Profession

In addition to providing the resident with factual information, the residency is a time to expose the candidate to the ethos of the profession. Psychiatry's accreditation requirements explain:

> While residents cannot be expected to achieve in four years of training the highest possible expertise in all of the diagnostic and treatment procedures used in psychiatry, those individuals who satisfactorily complete residency programs in psychiatry must be competent to render effective professional care to patients. Furthermore, they must have a keen awareness of their own strengths and limitations and of the necessity for continuing their own professional development (ACGME, n.d., 78).

In internal medicine, the ethos includes devotion to patient care, even if this infringes on the resident's private life. The internal medicine program guidelines state explicitly:

> It is necessary that the resident staff have a keen sense of responsibility for patient care. A resident's obligation to patients is not automatically discharged at any given hour of the day or any particular day of the week. Duty hours and night and weekend call must be sufficient to permit implementation of the concept of responsibility for patients and to provide for adequate patient care . . . Residency is a full-time responsibility . . . the residents' activity outside the educational program should not be allowed to interfere with their performance in the educational process (ACGME, n.d., 37).

Evaluation in Medical Internships

Faculty of residency programs are encouraged to develop a systematic and regular program of fair and objective assessment of residents. Evaluation during the residency through an in-training evaluation as well as other evaluation techniques is encouraged. The ACGME, which accredits programs, requires only that there be a system of evaluation; it does not look at the system's intricacies. Within the various programs, however, structured evaluation procedures have developed. Most feedback, of course, comes from the daily contact between residents and preceptors, which is substantial, but all of the programs we looked at also have semiformal or formal evaluation procedures in place.

At Saint Margaret Memorial Hospital's family medicine program, preceptors are asked to rate residents as "excellent," "good," "fair," or "poor" in various subcategories of skills, knowledge, and attitude/overall performance. Under "skills" are "relationship with patients," "physical diagnosis skills," "ability to communicate," "patient management," "quality of written record," and "quality of patient workup." Under "attitude/overall performance" are listed "reliability, dependability," "ability to work with others," "motivation," and "general ability as a resident." Residents are asked to complete a similar form regarding their preceptor. The two then spend 10 to 15 minutes discussing the completed questionnaire, which is then placed in the resident's file. The purpose of the evaluation is threefold: to guide constructive criticism between residents and preceptors, to make residents and preceptors more aware of their responsibilities in clinical teaching, and to improve clinical teaching and resident performance (Saint Margaret, 1988b.)

In the State University of New York—Kings County Hospital Center pediatrics department, first-year residents are rated monthly on a scale of one to four ("needs improvement" to "excellent") in ten areas, including "general fund of medical knowledge," "ability to integrate basic knowledge with clinical findings/ability to reason analytically and critically," "active participation in attending rounds," and "active pursuit of independent learning (from consults, books, journals)." At the end of the form, the evaluator is asked to answer "yes" or "no" to whether "this resident's performance [is] appropriate for his/her pediatric level of training. If not, why?" (State University, n.d.).

After the internship is complete, the resident is required to provide documentation of satisfactory performance, and then to pass an examination in the specific discipline of the residency, usually both written and oral. For instance, to be licensed in pediatrics, a candidate must present evidence of:

- Graduation from medical school.
- A license to practice medicine.
- Completion of at least three years of hospital-based training in general comprehensive pediatrics.
- A sworn affidavit from program directors verifying clinical competence; the director can recommend that the candidate not be admitted to the examination, in which case the applicant must complete an additional period of hospital-based training.
- A rating from the program director on a nine-point scale; if the scores are below three, the director must submit documentation of the applicant's weaknesses; and the applicant, unless he or she passes a screening examination, must complete additional training.
- A passing score on the written examination: two four-hour multiple-choice sections.
- A passing score on the oral examination, after passing the written examination.

If the candidate satisfies these requirements, the license to practice pediatrics is granted.

REFERENCES FOR MEDICINE

American Council of Graduate Medical Education (ACGME), *Essentials of Accredited Residencies in Graduate Medical Education*, n.d.

American Medical Association (AMA), *1986 U.S. Medical Licensure Statistics; 1987 Licensure Requirements*, Chicago, 1988.

Cleveland Clinic Foundation, *Graduate Medical Education Program*, Cleveland, Ohio, 1988.

Crowley, Anne E. (ed.), *1986-1987 Directory of Residency Training Programs*, American Medical Association, Chicago, 1986.

Saint Margaret Memorial Hospital, *Family Practice Residency Program*, Pittsburgh, 1988a.

Saint Margaret Memorial Hospital, "Family Practice Residency Program Preceptor Evaluation Form," Pittsburgh, 1988b.

State University—Kings County Hospital Center, "Department of Pediatrics Monthly PL-I Evaluation Form," Brooklyn, New York, n.d.

Yale University Department of Psychiatry, *Yale University Residency Training Program in Psychiatry*, New Haven, Connecticut, n.d.

Yale University Department of Psychiatry, *1988-89 Annual Supplement*, New Haven, Connecticut, 1988.

BIBLIOGRAPHY

American Association of State Psychology Boards (AASPB), *Entry Requirements for Professional Practice of Psychology*, Montgomery, Alabama, n.d.a.

American Association of State Psychology Boards (AASPB), *Licensing/Certification Requirements*, Montgomery, Alabama, n.d.b.

American Association of State Psychology Boards (AASPB), *Information for Candidates: Examination for Professional Practice in Psychology*, Montgomery, Alabama, n.d.c.

Association of Teacher Educators, *Assisting the Beginning Teacher*, Reston, Virginia, 1989.

Borko, H., "Clinical Teacher Education: The Induction Years," in J. V. Hoffman and J. Edwards (eds.), *Reality and Reform in Teacher Education*, Random House, New York, 1986.

Bredeson, P. V., M. J. Fruth, and K. L. Kasten, "Organizational Incentives and Secondary School Teaching," *Journal of Research and Development in Education*, Vol. 16, 1983, pp. 52–56.

Burks, M. P., *Requirements for Certification*, 51st ed., University of Chicago Press, Chicago, 1986.

Chapman, D. W., and S. M. Hutcheson, "Attrition from Teaching Careers: A Discriminant Analysis," *American Educational Research Journal*, Vol. 19, 1982, pp. 93–105.

Children's Hospital National Medical Center, *Predoctoral Internship Training Program in Child Clinical Psychology, 1988–89*, Washington, D.C., 1988.

Credentialing Requirements: A Summary of Thirty-One Professions Supervised by the Board of Regents and Administered by the New York State Education Department, State University of New York, Albany, 1988.

Darling-Hammond, L., A. E. Wise, and S. Pease, "Teacher Evaluation in the Organizational Context: A Review of the Literature," *Review of Educational Research*, Vol. 53, No. 3, Fall 1983, pp. 285–328.

Fox, S. M., and T. J. Singletary, "Deductions about Support Induction," *Journal of Teacher Education*, Vol. 37, 1986, pp. 12–15.

Grissmer, D. W., and S. N. Kirby, *Teacher Attrition: The Uphill Climb to Staff the Nation's Schools*, The RAND Corporation, R-3512-CSTP, August 1987.

Journal of Teacher Education, Vol. 37, No. 1, 1986.

McDonald, F., "The Problems of Beginning Teachers: A Crisis in Training" (Vol. 1), *Study of Induction Programs for Beginning Teachers*, Educational Testing Service, Princeton, New Jersey, 1980.

National Council of Engineering Examiners, *Why Become a P.E.? The NCEE Guide to Registration*, Clemson, South Carolina, n.d.

National Institute of Education, *Beginning Teachers and Internship Programs*, Report Number 78-0014, U.S. Department of Education, Washington, D.C., 1979.

National Council of Architectural Registration Boards (NCARB), *Organization, Services, Procedures, Records, Certifications and Examinations: 1987 Circular of Information No. 1*, Washington, D.C., 1987a.

National Council of Architectural Registration Boards (NCARB), *The Architect Registration Examination: 1987 Circular of Information No. 2*, Washington, D.C., 1987b.

National Council of Architectural Registration Boards (NCARB), *Education Standards for Certification: 1987 Circular of Information No. 3*, Washington, D.C., 1987c.

National Council of Architectural Registration Boards (NCARB), *IDP Training Guidelines 1987-88*, Washington, D.C., 1987d.

Rosenholtz, S. J., and M. A. Smylie, *Teacher Compensation and Career Ladders: Policy Implications from Research.* Paper commissioned by the Tennessee General Assembly's Select Committee on Education, December 1983.

Ryan, K., "Toward Understanding the Problem: At the Threshold of the Profession," in K. Howey and R. Bents (eds.), *Toward Meeting the Needs of Beginning Teachers*, U.S. Department of Education/Teacher Corp., Minneapolis, 1980.

Saint Margaret Memorial Hospital, *Family Practice Residency Program*, Pittsburgh, 1988.

Shulman, J. H., and J. A. Colbert (eds.), *The Mentor Teacher Casebook*, ERIC Clearinghouse on Educational Management, Eugene, Oregon, 1987.

Task Force on Teacher Education for Minnesota's Future, *Minnesota's Vision for Teacher Education: Stronger Standards, New Partnerships*, Minnesota Board of Teaching/Minnesota Higher Education Coordinating Board, October 1986.

Tisher, R. (ed.), *The Induction of Beginning Teachers in Australia*, Monash University, Melbourne, Australia, 1978.

Wise, A. E., and L. Darling-Hammond, *Licensing Teachers: Design for a Teaching Profession*, The RAND Corporation, R-3576-CSTP, November 1987.

Wise, A. E., L. Darling-Hammond, and B. Berry, *Effective Teacher Selection: From Recruitment to Retention*, The RAND Corporation, R-3462-NIE/CSTP, January 1987.

Wise, A. E., L. Darling-Hammond, M. W. McLaughlin, and H. T. Bernstein, *Teacher Evaluation: A Study of Effective Practices*, The RAND Corporation, R-3139-NIE, June 1984.